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An Introduction
to the
Principles and Practice
of
Homœopathy.

By

CHARLES E. WHEELER, M.D., B.S., B.Sc. (Lond.).

Published by

THE BRITISH HOMŒOPATHIC ASSOCIATION
(INCORPORATED).

43, Russell Square, London, W.C.1.

1920

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An Introduction
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CHARLES E. WHEELER, M.D., B.S., B.Sc. (Lond.),

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Homœopathic Society, Author of "Knaves or Fools?" "The Case for
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London Homœopathic Hospital.

"Nasce per quello, a guisa di rampollo,
Appiè del vero il dubbio : ed è natura,
Ch'al sommo pinge noi di collo in collo."

Dante.

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PREFACE.

THIS book is intended as an Introduction to Homœopathy, to supply some means of understanding the principle underlying it and also some means of testing its validity by practical experiment. If possible a second volume will be published later including a number of studies of other drugs, a knowledge of which will equip the physician to deal with nearly all emergencies homœopathically ; but there is enough material in this present book to enable clinical tests to be made in sufficient number and variety to form a reasonable basis for an opinion as to the truth or otherwise of the claims of homœopathy. This is all that the believers in it desire. Experiment has convinced them and they are willing to stand or fall by the results of it ; they are human enough to be a little resentful of the too common habit of pronouncing judgment in this (scientific) cause without such investigation of the evidence as alone can warrant a scientific conclusion.

The evidence must be experimental. Any physician who will master the general principles described in the earlier chapters, and then acquaint himself fully with the characteristics of even half a dozen of the drugs presented, will not need to wait very long before he finds a case whose symptomatology will recall one or other of the remedies. If he first assures himself that the resemblance is a close one, then to administer a similar drug is to make an experiment in the truth of homœopathy. By the results of a number of such experiments will conviction be finally assured. Naturally, no physician

will adopt this (to him) problematical method at first for any case where he has full confidence in the weapons of treatment already familiar to him. Rather he will seek to try homœopathy upon the cases that he finds difficult, and this is in every way desirable. To determine how far any favourable results are *caused* by the treatment is a problem that does not concern homœopathy only, but all forms of treatment. The inquirer can only multiply experiments and exclude doubtful cases to the best of his ability. If he comes to the conclusion that suggestion is a sufficient explanation of all favourable results, no homœopathist will have any quarrel with him (however much he may disagree with the verdict), provided that the experiments were well and carefully made.

It will be realized, therefore, that this book is planned to enable actual experiments to be made, and that there is no desire to sway judgment upon any but experimental grounds. From time to time, in stating principles or describing drugs, suggestions are made as to possible modes of action, theoretical explanations hinted at of apparently paradoxical phenomena, but these are to be regarded as concessions to the inquiring spirit, rather than arguments aiming at conversion. Not that it is not in the highest degree desirable that this "explanatory" work should not be amplified and extended until haply it should be possible to state the principles and practice of homœopathy in the full light of understanding ; but at present the clinical rule to choose the drug by its resemblance to the case of disease seems (to the homœopathist, at least) successful far beyond the power of the physician to explain its success. If the rule be a sound one, the patient should have the benefit of it, even if a full compre-

hension of its action have to await the fulness of time. Therefore no special stress is laid in these pages upon non-clinical experiments, save as illustrations and commentaries. Unless the practice of homœopathy convinces the inquirer, laboratory and non-clinical experimentation can as yet hardly hope to do so.

If the first tentative experiments prove successful, the inquirer will soon need fuller and more elaborate works on homœopathy than this, although when the second volume is completed the entire work will go some way to supply his needs. Such works are : *The Dictionary of Materia Medica* of Dr. J. H. Clarke, *The Materia Medica and Repertory* of Dr. Kent, Allen's *Encyclopædia*, and the writings of Dr. Hughes :—*Pharmacodynamics* and *The Cyclopædia of Drug Pathogenesis*. Smaller works by Dr. Allen, Dr. Nash, and Dr. Boericke are invaluable, and every enthusiast for homœopathy finds his way quickly back to Hahnemann himself and Hering and Jahr, and many others of the great men of the early days whose homœopathy is by no means "out of date."

Upon these works is founded the homœopathy here detailed, supplemented of course by personal experience and the interchanges of professional intercourse. The two works that have proved of the greatest help are Dr. Kent's *Materia Medica* and Dr. J. H. Clarke's *Dictionary of Materia Medica*, and to these I wish to pay a very special debt of acknowledgment. Of the friends who have helped me, I have had aid from Dr. Edwin A. Neatby which has been so invaluable that, if he would have allowed me, I would have put his name upon the title-page, where in my judgment it ought to be. Failing that, I can only here pay a small portion of the gratitude I owe. Dr. John Weir has given me much help


also, but his share in the work will probably be of even more importance in the volume designed to follow this one. Among others who have given me assistance by speech and by writing, I wish to mention specially Dr. T. G. Stonham, upon whose materia medica studies I have drawn freely, and always with profit. Finally the Council of the British Homœopathic Association, the initiators and publishers of this work, have backed it with a whole-hearted energy that has been of the greatest value.

For authorities on materia medica other than those avowedly homœopathic, I have relied chiefly on the great work of Dr. Cushny. It is, perhaps, doubtful if the distinguished author will value the grateful acknowledgment of a heretic, but I should feel lacking both in power of appreciation and in common courtesy if I did not express my profound admiration for Dr. Cushny's work and my gratitude for all the assistance I have derived from it. Two other non-homœopathic works have been referred to by me with some frequency—*Die Nebenwirkungen der Arzneimittel* of Professor Lewin and the *Inorganic Materia Medica* of Professor Schulz. The first includes not only objective symptoms of drug poisonings, but certain subjective symptoms also, and thereby gains in value for the homœopathist. Dr. Schulz's work is inspired by pharmaco-dynamical conceptions not unlike those with which Hahnemann began, and consequently his work is, for the homœopathist, a storehouse of confirmation and suggestion. Articles in English and American journals are here and there alluded to in this book, but sparingly, because, as the circulation of our journals is relatively limited, they are not easy to obtain if any time has elapsed since publication.

It is well in conclusion to insist yet once more that the validity of the homœopathic generalisation is a matter to be determined by experiment and not by authority. Unless the claims made in this volume can be justified by the physician at the bedside, he will rightly reject them, even though supported by long lists of famous names. The only proviso which it is reasonable for the homœopathist to make is that the clinical experiments should be full and careful. It is by no means always easy to find the most similar remedy. Though only a small percentage of the profession has ever fairly experimented with homœopathy, of those who have, the vast majority have come to believe in its value. But there are, nevertheless, some who claim to have tested it and proved its futility. Those who believe are justly anxious that it should have a full and fair trial, and in their experience they find much to criticise in the experiments of those who have claimed that they have reached a negative conclusion thereby. This does not, of course, invalidate the negative evidence, but it justifies the desire that future experiments should be founded on definite knowledge. Whatever conclusions the physician may reach, if this book helps anyone to make an investigation for himself, it will have served its purpose, and science can only gain (as always) from any honest and painstaking experiment.

C. E. WHEELER.

71, Harley Street.



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**THE
PRINCIPLES OF HOMŒOPATHY.**

THE PRINCIPLES OF HOMŒOPATHY.

DEFINITION AND GENERAL CONSIDERATIONS.

FOR more than a hundred years the world of medicine has wrangled over the value of homœopathy. At any single moment the verdict of the great majority would have been given against it and to a hasty observation this fact might appear conclusive. But dispassionate examination of medical history reveals first that hardly any advance in the science and art of healing has escaped violent and virulent opposition; and second that very, very few of those who condemn homœopathy have a knowledge even of its principles, to say nothing of its practice. Wherefore it is clear that in the court of science, their testimony, however voluble and dogmatic, is vain. Hahnemann and his followers make certain definite statements concerning the use of drugs for the relief of diseases: they claim to base their statements upon clinical experiments many times repeated. Clearly at the judgment bar of science, only experiments equally careful, equally numerous, but leading to opposite conclusions can be accepted as counter-vailing material. The question in brief is a practical one. Are the statements of the homœopathist justified? How but by experiment can they be tested?

Nevertheless the road of experiment is toilsome: the mental labour demanded of physicians does not diminish but increases as the years bring new knowledge, and except a man feel reasonably sure that he will gain some reward, he may be forgiven if he hesitates to climb the hill (for it is long and steep) that leads to conviction. Any who feel disposed to use their energy elsewhere can well be for-

given, provided that they own that of this pathway they are ignorant and place no barriers of prejudice and contempt to impede those minded to try it. But it is a commonplace among physicians to deplore both the too frequent failures of drugs and the lack of much clear guidance in their use. Homœopathy at least offers a promise and a few may be willing to give it a trial. They cannot begin without a clear knowledge of its meaning and purpose and may be encouraged by any theoretical considerations seeming to suggest a confidence that its promise will not be wholly vain. To define homœopathy and suggest that it is not an unreasonable conception of the relation of drugs to diseases is the purpose of this chapter.

Diseases are known to us by the symptoms which they produce, using the word symptoms here (and throughout this volume) to denote the objective signs (physical signs) observable by the physician by means of his instruments of precision and by his unaided senses, as well as the subjective experiences of the patient. Without the presence of symptoms it can hardly be said that an individual is diseased : it may be possible to cultivate specific germs from a surface or secretion of his body, it may even be desirable to deal with the condition that may thus make him a "carrier" of disease, but treatment is then a matter of public rather than of private health. The man is a possible source of danger to others, but not himself a patient. The symptoms of diseases, as observed, fall into a variety of categories more or less well defined, enabling the physician to construct a nomenclature of disorders : but side by side with the relatively constant features in a symptom-complex which allow it to be classed as a pneumonia, a colitis or whatever, are invariably found symptoms less constant, varying from case to case with individual "constitution," so that no one case, even of a well defined disease, exactly resembles another any more than any two individuals are ever absolutely identical.

Just as the so-called "natural" diseases present themselves as symptom-complexes capable of individual differentiation as well as of general grouping into classes, so when drugs are administered to healthy persons, characteristic symptom-complexes are produced with certain general resemblances and definite individual differences, so that from every agent capable of affecting the human body can be elicited a summary of its effects on the body until the picture, e.g. of phosphorus poisoning, can become as clear a mental image as the picture of pneumonia.

The initial and all-important generalisation of Hahnemann was based on the fact (observed from the days of Hippocrates by individuals, though never before Hahnemann made the basis of practice*) that when the symptom-complex of any case of disease is compared with the symptom-complexes produced by drugs, there will almost always be found a resemblance, often extraordinarily close, between the disease-picture and the picture of the effects of some drug on healthy persons. This relationship is a fact that becomes increasingly clear the more knowledge is accumulated of the effects of drugs, and the failure of the physician to recognise it is due to the prevailing ignorance of the symptoms which drugs can cause on the healthy. But any physician who will master the symptoms producible by (say) arsenic, phosphorus, nux vomica, etc., on the healthy will not need to look long or far before he finds a case of disease which will recall the effects of one of these drugs to his mind, often with a parallelism of detail almost startling.

The fundamental generalisation, the bedrock of homœopathy, is that the most successful drug for any given occasion will be the drug whose own symptomatology presents the clearest and closest resemblance to the symptom-complex of the case in question. Briefly "Likes should be treated with likes"; the *simillimum*, the most-resembling drug,

* Unless perhaps by Paracelsus.

should be preferred. Whenever this rule is followed (even unconsciously) homœopathy is practised.

Hahnemann was put on the track of this generalisation by an experiment when he discovered that cinchona bark, the great remedy for ague, could produce upon himself symptoms (even some of the lesser ones) of an attack of ague. From this initial experiment he worked in two directions for the rest of his life, and only after years of labour did he reach absolute convictions which thereafter he extended and amplified. His two paths of knowledge were the less important one of research into past records to discover accidental confirmations of the likelihood of cures by "similar" remedies (and he found many), and the much more important road of direct experiment. First, drugs had to be tested, "proved," on the healthy, then as their symptomatology became defined they were given to "similar" cases of disease and their effects noted. No words, nothing but direct investigation, can give any conception of the magnitude of Hahnemann's labours, but his ceaseless toil both confirmed his belief in his great generalisation and made easier the tests of those who care to follow him. Homœopathy rests on experiment. By experiment alone can it be tested, by experiment alone confirmed or confuted.

This then is what homœopathy is, a rule of practice for the administration of drugs.* It demands a knowledge of the effects of drugs upon the healthy which can only be fully obtained by experiment, correlating and extending the results of accidental poisonings and observations on the sick (the so-called clinical symptoms); and this knowledge the Homœopathic Materia Medica seeks to supply. When this knowledge is used to select for any case of disease a similar (the most similar) remedy, then an experiment is made in homœopathy. Practical experience from Hahnemann onwards adds the recommendation to give the remedy in a small (not necessarily an infinitesimal) dose. But the dose, of which more will

* And for that matter of other (physical) agents

be said in a later chapter, is secondary to the choice of the remedy. It is this that stamps a treatment as homœopathic.

It will now be realised that the practice of homœopathy is concerned alone with the administration of remedies. It is a branch of therapeutics, a specialism if the name be preferred, and the study of it is an addition to the resources of the physician, not an impediment to the use of any other treatment justifiably prized. The value and need of surgery, the refinement of diagnosis, the study of pathology, the application of diet and exercises and physical stimuli, all that the years have given of worth, are as much the prized possession of the believer in homœopathy as of his unbelieving colleague. Even with regard to other uses of drugs than their homœopathic application the homœopathist is free to employ any that he requires. If he uses little morphia and less salicylate of soda, purgatives with care and local applications with some reluctance, his relative denial of their efficacy is based on the possession of a guide that generally relieves him of the need for these remedies. If the symptoms point clearly to a *simillimum* that agent will seldom fail to relieve pain or put constipation or skin disease in the way of recovery, perhaps more slowly but generally more surely and permanently than the (apparently) readier methods of treatment. But if through lack of knowledge or of skill (for it is not easy to practise homœopathy finely) he is at a loss, he is free and ready to turn to the more orthodox resources, being (it is to be hoped) a physician before he is a homœopathist. Only, the more skilled the believer in homœopathy the less often he has need of these other uses of drugs, and in his caution in the use of them he has the countenance and support of great teachers of medicine themselves. Drugs and drug therapeutics are to some extent under a cloud of suspicion in these days and, apart from their homœopathic uses, the follower of Hahnemann sees little reason to dispel the shadow which orthodox experience has cast on them.

There is one aspect of the orthodox uses of drugs which deserves a word or two. Over and over again the homœopathist finds drugs recommended by non-homœopathic authority for conditions to which they are similar. In many instances the similarity is unrecognised from ignorance of the drug "provings" and the symptoms so elicited; but in some cases (*e.g.* cantharides for nephritis, opium for constipation, &c.) it might be thought that a suspicion at least of homœopathicity would cross the minds of those who recommend them. A leading medical journal within the last twelve months has commented on the resemblance of symptoms of Emetine poisoning to those of the dysentery for whose cure it is given. The late Dr. Dyce Brown collected some seventy examples of this unconscious "homœopathising." The number of these illustrations of the truth of the Hahnemannian generalisation is usually unrecognized. If it were recognised, the possibility that these scattered instances could be gathered under one formula might surely strike even the unobservant and the success of vaccine therapy comes to strengthen the possibility that "like" may be a remedy for "like": for if it is not homœopathy to make remedies for diseases out of the agents which are held to be the causes of these diseases it is difficult to find a better word. It will be argued perhaps that the response in anti-body production to the stimulus of a vaccine is a phenomenon observed and brought to usefulness with no thought of homœopathy. This is true, but the fact increases the significance of the observations. It is of course not thereby *proved* that a drug that can produce similar symptoms to a disease, will be a remedy for that disease, but it makes the possibility of such a relationship more credible, and surely therefore increases the urgency of such tests as alone can establish or deny the Hahnemannian claim. Vaccine therapy does not prove the truth of homœopathy, but does it not make it less paradoxical and incite to independent research?

Thus historically it must be admitted that while

the truth of homœopathy must rest on experiment, widespread and satisfactory testing has been hitherto denied, and thus a road promising much of value to the physician has remained unexplored. The few who have been led along it rarely retrace their steps or fail to praise it, and this fact should be a further inducement to research. But general biological considerations, apart from clinical experience, can make a case for experiment in this matter. Disease is ultimately an affair of the reactions of protoplasm, and in the response of protoplasm to stimuli we should find, if anywhere, material for generalisations upon disease and treatment. Now these responses of protoplasm have been well investigated, and appear to follow a constant rule generally summarised as Arndt's Law.* The simple statement of this rule is that small stimuli encourage life activity, medium to strong stimuli tend to impede it, and very strong stimuli to stop or destroy it. Thus strong solutions of arsenious acid will destroy the yeast cell,† less strong impede its fermentative activity, but very dilute solutions will encourage its activity, at any rate for a time.

Considering only the behaviour of protoplasm, we should be led to argue that since in disease the cells specially attacked are the cells specially in need of a stimulus (since their life activities are threatened), that stimulus will be found in a small dose of the agent which in large dose can damage or destroy precisely these particular cells. How can the special relationships of drugs to cells be known? How but by a testing of drugs upon the healthy? Drugs given to persons in health will influence certain cells and tissues according to their individual "affinities": when by symptoms thus produced we know that a drug can damage this or that set of cells, then we

* Law in a biological sense (and medicine is a biological study) implies no eternal binding force, but merely that hitherto in experience certain results follow certain causes in a definite predicable sequence.

† It is a commonplace of all *Materia Medica* that the first effects of a drug should often be opposite to its last effects: *e.g.* camphor will be aphrodisiac at first and later anaphrodisiac.

can use a small dose of the same drug to stimulate the same set of cells if oppressed by disease. In other words, the responses of protoplasm to stimuli would justify the recommendations :

(a). Test drugs on the healthy and note the symptoms.

(b). When treating disease, look for a drug which has produced similar symptoms on the healthy, for only thus can there be any confidence that it will influence the tissues affected.

(c). Give a small dose.

This summary is sufficiently close to the Hahnemannian generalisation to encourage the testing of it, yet it is reached by arguments from non-clinical experience.

Finally it is significant to note how the generalisation of Hahnemann has been both anticipated and independently reached subsequently by other observers. Hippocrates noted that drugs could sometimes cure "similar" diseases, though he made no rule of practice from the observation. Paracelsus wrapped his teaching in such obscurity that it is rash to dogmatise upon it, but if I interpret him rightly he believed that "Like to like" was the sound rule of prescription: his suggestion of naming diseases by the drugs which would relieve them seems to mean that it was from similarity that he selected them. John Hunter conceived from the resemblance of the symptoms of chronic mercury poisoning to those of syphilis and the undoubted power of the drug to relieve that disease, that "similarity" might be a clue to the best uses of remedies. And since Hahnemann, the great Trousseau (for all his hatred of homœopathy) suggested a principle of "substitution therapy" which led in practice to the use of "similar" medicines. Dr. Reith (more or less forgotten now) and Professor Hugo Schulz (yet living) deduced, independently of one another and of any knowledge of homœopathy, from biological considerations such as have been outlined above, a system of therapeutics which closely

resembles that of homœopathy. Both of these men came quickly to realise where their clues had led them, and made fullest acknowledgment of Hahnemann's precedence in the field. Professor Schulz will be often quoted in this volume and his independent work is the most important addition to homœopathic literature which has been made from any source not avowedly deriving from Hahnemann. Homœopathy therefore is a principle of drug therapeutics : it teaches that drugs must be tested on the healthy, and chosen for diseases by their similarity of symptoms : the closer the similarity between drug symptoms and disease symptoms the greater the chance of permanent and speedy relief. It claims to be justifiable on general grounds, but can derive final validity only from clinical experiment. Subsequent chapters must deal with the supply of material for such experiments and the best method and manner in which to make them.*

* It is not unusual to recommend a method of treatment by statistics whenever comparison is possible. Homœopathy has no reason to fear the test of figures, and has indeed largely profited by such tests, but its followers are well aware of the many fallacies that may lurk in records of cases, similarly named but perhaps differing widely in many respects, and their limited control of public institutions (fever hospitals, asylums, etc.) deprives them of the opportunity of simple comparisons year by year. But they can fairly urge that the personal experience of their converts has a value that may be called statistical. Every physician in Europe who adopts homœopathy is trained in all the wisdom of orthodoxy, has his own clinical experience of its value, and has seen the practice in detail of the masters of its art. If he faces the contempt and obloquy of avowed homœopathy (much less than of old, but not negligible even to-day) and no man lightly severs himself from professional fellowship—it can only be because he believes that through Homœopathy he obtains better results. Yet in attaining these results his general knowledge remains the same, and the power of his personality is unchanged. The only new factor in his practice is his new therapeutic learning, and it is only fair to attribute to it the gain for whose sake he is ready to face the smile of contempt and perhaps the cold shoulder of ostracism. He undertakes new and hard labour for no obvious gain except greater power to heal the sick : before he is dubbed merely credulous, his critics should repeat his experiments, and the price he is willing to pay should attest the sincerity of his belief in the worth of his prize.

THE STRUCTURE OF THE HOMŒOPATHIC MATERIA MEDICA.

Hahnemann called the *Materia Medica* which owed (and still owes) its conception, initiation, and the most valuable part of its structure to his devotion and genius, by the name "Pure," whereby he meant to indicate that it should be experimental, rather than conjectural, recording the effects of drugs upon the healthy and little or nothing else. In the main his followers have retained his ideal, and the extension of his work has followed, for the greater part, on the lines laid down by him. When a homœopathist desires to study a drug, hitherto unknown as a remedy, he must begin by getting it "proved" by as many persons of both sexes as possible. Preferably they should be thoroughly healthy, old enough to report their subjective symptoms intelligently, but young enough to have sensitive tissues unpoisoned by errors of diet or drugging, and undamaged by the results of physical indulgence.

For many remedies, this ideal has been tolerably well attained, and their pathogeneses sifted through many clinical experiences, can be set forth with confidence as veritable drug pictures. Many other remedies have been proved with less completeness, but still sufficiently to make them available for use, and of others again we have but little knowledge : these last await their true place in the *Materia Medica*.

But although the deliberate systematic testing of medicines upon the healthy must remain by far the most important source of our *Materia Medica*, there remain other springs not by any means to be despised. The first of these is the knowledge derived from poisoning by drugs, accidental or intentional. Hereby are revealed the gross effects of massive doses, and here frequently it is possible by post-mortem examinations to judge something of the morbid tissue anatomy produced by these agents. This knowledge

has definite value, but is of less worth for the prescriber's purposes than the observations of the provers. It is universally admitted that it is in the earliest stage that diseases are most amenable to treatment, and in this stage the symptoms of the conflict between disease and life are more likely to be subjective and indirect than significant of the gross tissue changes that may be about to follow. The aim of the homœopathist is to discover the *simillimum* for the disease while it expresses itself in such preliminary symptoms, and this he is more likely to find among drug pictures gradually built up by administration of small doses during a considerable time than in the overwhelming effects of large quantities. Many tissues once destroyed can by no means be reintegrated, and to delay treatment till the spinal sclerosis, or interstitial nephritis is unmistakable is to leave little but palliation possible for the physician.

The often (mistakenly) derided interest of the homœopathist in symptoms therefore finds its justification as an attempt to cure diseases while they are still curable. It need hardly be added that the disappearance of symptoms which *may* have been the first signs of tissue changes impending does not for a moment warrant the claim that these tissue changes would inevitably have followed the neglect of our remedies, and that the cases are therefore to be classed as "cures" of sclerosis or nephritis, or whatever it may be. That would be an assumption quite unwarrantable in any given instance. For that matter, though the recovery of any isolated case may raise a reasonable presumption that treatment has been effective, it can never establish its effectiveness as a fact beyond cavil. Only by prolonged experience over many years and comparison of many cases can homœopathists have any confidence that their treatment of preliminary symptoms does sometimes ward off serious disease, but this experience has been gained and these comparisons made, and the desirability of attempting this task may be taken as

established for those who have studied the subject. In any case the need of the patient for relief is obvious, and homœopathy offers a way of choosing a remedy which has claims to relieve not only fugitive symptoms but those that are forerunners of graver troubles, and there for the moment the matter may rest. It suffices to indicate the reason for the preference of the deliberate proving over the poisoning as a guide to the remedy. When the tissue change is established the pathological relation of drug to disease is an invaluable guide to a remedy which may cure an acute recoverable tissue-effect of illness (*e.g.* pneumonia) or relieve or palliate a chronic and irrecoverable one.

Similar advantages and disadvantages belong to drug experiments upon animals. They are not to be despised, but they have a special defect of their own in that the bodies of animals cannot be expected always to react to stimuli as do the bodies of human beings. He who would for instance make the effect of Belladonna on the rabbit the sole guide to its use on patients might well be led into error. All this material, therefore, homœopathy uses gratefully enough as regards any hints of possible action, but with considerable caution. Seeing that in practice a drug is to be given to human beings, it is to the effects of the drug upon men and women that the physician looks with most confidence for guidance. The veterinary practitioner naturally finds a special value in animal "provings."

Over and above provings, poisonings, experiments on animals, there remains clinical experience. This is of value in two ways.

In the first place, it will strike the inquirer at once that symptoms (especially subjective symptoms) set down by provers may not be drug effects at all. Imagination, stimulated by attention and expectation, is capable of producing the most definite phenomena. How shall the true drug effects be distinguished from the false? In the first instance homœopathy relies on the acumen of the supervisor of the proving.

By cross-examining his subjects and using all his knowledge of their capabilities and qualities, he can often from the first throw out or query symptoms unlikely to have been produced by the drug. Further, the multiplication of provers is a great help, for obviously symptoms reported by two or three or more, are less likely to be spurious than those which appear only in the record of one. Care, however, must be exercised in applying this test, for among several provers one or two will be more susceptible to the drug and may well obtain genuine symptoms of its action which the others miss. There are records of the infinity of pains and patient labour which Hahnemann devoted to the verification of symptoms, and given a trained, alert, sceptical but not prejudiced mind, even one or two provings will yield fruits of value. Nevertheless, without a doubt some imaginary symptoms will pass the first sieve.

But now comes to be applied the final testing, the application to the actual case. If a belief in the truth of the homœopathic generalisation exists in the physician (and it is not too much to say that it can safely be founded on clinical experiments which admit the use of no doubtful symptoms), then this belief can be further used to test the provings. If any recorded symptom proves a valid guide to the choice of a remedy (as vouched for by the disappearance of the symptom after administration of the drug), then that counts in favour of the truth of that symptom of the proving. It must be premised of course that the symptom under trial shall be accompanied by others warranting the choice of the remedy as the *simillimum* and that the tests must be repeated in several instances. But granting these conditions, it is fair to say that the symptom that consistently justifies itself as a guide to the curative remedy deserves to be accepted as a genuine drug symptom, and may be henceforth held in honour. Similarly, symptoms which consistently fail as guides can be discarded. In this way clinical experience proves the provings.

But it has another value. Two phenomena can be frequently observed in the course of practice with remedies. First, the appearance of new symptoms in the patient following the administration of a drug ; second, the disappearance of symptoms (under treatment) which are unrepresented in the provings of the agent employed. In either case the remedy *may* be responsible for the phenomenon.

The appearance of new symptoms in the course of disease under treatment demands (as all phenomena demand from science) the most detached, unprejudiced consideration before a conclusion is drawn, and any conclusion can be no more at first than tentative, and lightly held. The power of disease to give rise to unusual symptoms is as boundless as are the variations in human constitutions, and the first assumption with regard to a newly appearing symptom, however strange, must be that it is probably due to the disorder and not to the drug administered. Nevertheless, if the new symptom is observed in close connection with the remedial agent, rising and falling in intensity with the nearness to or remoteness from the times of administration, if it is accompanied by other symptoms known to be characteristic of the drug, the *possibility* may be considered that it is a drug-produced symptom which thereupon becomes a candidate for inclusion in the pathogenesis of the remedy. The pretensions of the candidate need the most cautious testing. If future experience shows that the new symptom not only repeatedly arises in association with other symptoms of the medicine but that, in other cases, it also disappears after the administration of the drug, then by degrees a reasonable degree of conviction can be attained, and the symptom placed among the others of the drug-picture as a trustworthy guide to the use of the remedy. This process of sifting requires time as well as patience and care, but it has added certain new features to a number of drug pictures, and is not to be despised as a means of supplementing the Materia Medica.

The disappearance of symptoms under treatment, however, is a more fruitful field for observation. Suppose a remedy is chosen on the ground of its resemblance to the symptoms of a case, but suppose (as often happens) that the resemblance, though fairly close, has one or more notable gaps, the disease presenting a marked symptom or two for which no parallel can be found in the proving. Suppose, nevertheless, that no closer *simillimum* can be found and that the drug is given. If now it proves successful it will probably remove not only the symptoms that were known to appear in its pathogenesis, but also the ones hitherto unrepresented. In such a case it is not unreasonable to adopt as a working hypothesis, the theory that the symptoms removed may be valuable indications of the remedy, and to include them in the pathogenesis temporarily until further clinical experience has justified their permanent retention there or condemned them.

By these means clinical symptoms are often obtained of permanent value, and for practical purposes if a symptom has repeatedly shown itself a trustworthy guide to the choice of a remedy, there is no reason why it should be ignored because it has never happened to appear in any proving. There are many drugs of which we know a great deal, but few or none of which we can say that our knowledge is exhaustive, and we can afford to neglect no source of knowledge, provided always that we draw from it *without undue credulity*. Largely by clinical experience a large store of information has also accumulated as to the general characteristics of patients in regard to their susceptibilities to various drugs. This knowledge is very valuable, as will be realised in the course of this work, and it is owed to a combination of clinical observation and application of provings where it is far from easy to apportion the respective values of the contributions. But here again the value of the statements as guides to practice is of more importance to the working physician than the actual source of the knowledge.

The Homœopathic Materia Medica, therefore, is drawn from all these springs. In the drug studies that follow, the intention of the writer is to incorporate only such material as can be regarded as trustworthy, but no space will be given to details of discrimination as to the particular fountain from which this or that symptom has flowed. If it justifies itself as a sure ground for a prescription its value is assured.

HOMŒOPATHIC PHARMACY, POTENTISATION, DOSAGE.

The preparation of remedies for use according to the principle of homœopathy is simple in method, but demands the greatest care and conscientiousness in practice. Here the physician is necessarily dependent upon the chemist, and no considerations of expense should be allowed to stand in the way of procuring the best prepared tinctures and potencies. In any case, the drug bills of homœopathy will always be incomparably smaller than those of "orthodox" medicine.

When Hahnemann began to test the truth of his great generalisation, he used remedies in dosage not very far removed from that of his former practice. He seems never to have favoured the massive doses of most of his contemporaries, and using a single remedy at a time, in no great quantity, his new method must have seemed to him in no way to err on the side of excess. Nevertheless, experience soon taught him that his dosage was unnecessarily large, for frequently, although his patients were ultimately relieved, the first effect of his medicines was an aggravation of symptoms, not to be wondered at seeing that the drug had powers similar to those of the disease, but nevertheless undesirable. In the endeavour to avoid this preliminary aggravation of symptoms, he began to reduce his doses, and speedily found that most drugs, given "homœopathically," seemed effective in quantities of a smallness hitherto inconceivable. He therefore systematised his pharmacy, and the practice of homœopathy as received from Hahnemann is as follows.

From medicinal plants tinctures are prepared in the way customary with all druggists, with the proviso that homœopaths desire the fresh plant

to be used if possible, and generally the whole of it, from root to flower. The flowering season is the time appointed for collecting plants. The very strongest possible tincture is made in this way, and is named the Mother Tincture, and symbolised in writing prescriptions by the Greek letter ϕ or θ . The successive dilutions or "potencies," as they are called, are made from this on either the centesimal scale (Hahnemann's own) or the decimal. In the first series, potency number 1 (potencies are prescribed by number, 1, 6, 12, 30, etc.) consists of one drop of the tincture to 99 drops of the neutral fluid, usually spirits of wine, with a small quantity of water. A drop of number 1, with a further 99 drops of the medium is the second potency: a drop of this and 99 drops of the medium make the third, and so on, as far as the physician desires. Each successive potency should receive the most thorough succussion and agitation so as to distribute the tincture fully and evenly through the whole mass of the diluting medium.

In the second (decimal) series, the steps are made by tens instead of by hundreds. Thus the first decimal (1x potency) consists of one drop of tincture and 9 drops of spirits of wine, suitably shaken up together; then a drop of this 1x and 9 further drops of alcohol and water gives the second decimal or 2x, and so on, to 3x, 4x, as far as may be desired. In actual quantity of tincture present, therefore, the 2x equals the first centesimal (written simply 1, or sometimes 1c), the 6x equals the third centesimal (3 or 3c), the 30x equals the 15c and so on, but the number on the decimal scale involves a greater number of succussions for its preparation than its parallel in the centesimal scale. Generally speaking, potencies from the tincture to the third centesimal (or 6x) are classified as "low"; from 3 to 12 (6x to 24x) as "medium," and from 12 or 15 upwards as high, ranging to very high potencies.

For mineral substances the principle of preparation is similar. Each potency is reckoned to contain a

corresponding proportion of the pure substance : thus $1x$ would imply a strength of one in ten of the pure mineral, $3x$ would imply the presence of one in a thousand. If the substance is soluble in alcohol, alcohol and water is used as the medium for making potencies. If the mineral is insoluble in alcohol but soluble in water, then distilled water is used for the lower potencies at any rate, though a proportion of alcohol is added when the higher are reached. Such drugs as phosphorus require special treatment.

If the substance is insoluble (*e.g.*, gold, lead, silica, etc.), it is prepared by prolonged trituration with sugar of milk, but the proportions are graduated as before, so that a $2x$ trituration (or the first centesimal) implies one part of the substance with 99 of sugar of milk. After the $6x$, however, the further potencies can be made with alcohol and water, for prolonged trituration appears to produce a physical change converting these insoluble substances into the colloidal state. In this condition they can be suspended in a fluid medium indefinitely and the suspensions behave for medicinal purposes like solutions. Observation and experiment enabled Hahnemann to assure himself of this fact, although he could not give the physical explanation of it, since in his day "colloids" were unknown. Hardly any statement of his has been held up to greater ridicule than this assertion that solutions could be made of insoluble substances. Now, however, time has done him right ; if not technically solutions, these preparations can be treated as solutions from a pharmaceutical standpoint. The whole episode demonstrates once again the close observation of Hahnemann and his trust in careful experiment, and also the folly of reckless denials of the results of experiment, when the denials are based not on counter-vailing tests, but on prejudice and preconceived ideas.

The foregoing pages are in no sense a full account of homœopathic pharmacy, for there are individual peculiarities of certain drugs which demand special

pharmaceutical treatment. Details can be found in the official Homœopathic Pharmacopœias of Europe and America. But the main outlines of the general method of preparation should now be clear. The aim is to obtain a series of preparations wherein the actual quantity of the drug becomes less and less. These preparations are known as potencies and the process of making them as potentisation, and their value and spheres of usefulness remain to be considered.

Since the central homœopathic generalisation concerns only the choice of the remedy, homœopathy can be practised without recourse to potencies at all. Experience will quickly teach the advisability of the small dose, but much good homœopathic work has been done, and can be done, with tinctures and easily demonstrable quantities of drugs, and the instinct of most beginners is to stay in this more familiar region. But the feeling that prompts this tendency is really a legacy from the dark ages of medicine, a relic of the conception of a drug as an agent of power independent of the body mechanism, power to give strength from itself, ("tonic") power to combat disease directly as in the days when a "hot" disorder was countered by a "cold" remedy. Now it is known that, except possibly for certain remedies to be considered in a moment, this conception is a false one. Whatever resistance is made to a disease, or attempt at repair of damage to tissues, is made by a definite and usually specific body mechanism, and to-day we catch many glimpses of the nature and mode of action of these mechanisms. The physician can help or hinder these natural processes by drugs, but since the drug, if it acts at all, will act by influencing a pre-existing mechanism, the only quantity of it required is that quantity that will set in motion a machinery temporarily disused, or speed up one insufficiently used, or control one racing wastefully. Such glimpses as we can catch of these protoplasmic processes always suggest the work of enzymes as regulators of them, and it is notorious

that enzyme action demands the presence of only a small, even an infinitesimal quantity. In so far, then, as drugs can either replace enzymes or stimulate their production, there is no *a priori* reason (rather the contrary) for expecting large quantities to be necessary, and clearly since a drug may be, and generally is, a foreign substance, the less of it that can be used to produce an effect the better; any surplus can be but an impediment to the processes of life.

An analogy (used with caution, as all analogies should be) may serve to illustrate the position. The tissues have a daily income and expenditure of energy, as individuals in society have an income and expenditure of money. But as the luckier among men have reserves of wealth (say a deposit, as well as a current, banking account), so have all the tissues reserves of energy. The power to deal with disease lies finally with one or more of these reserves, but just as money on deposit cannot be obtained without certain formalities, so sometimes tissue reserves are used slowly and ineffectively. Conceivably the drug sometimes sets free these reserves or modifies the speed with which they can be used, and to do this it is unnecessary to invoke large quantities of drugs—or at least the quantity required becomes a legitimate subject for experiment.

Of late years the minds of physicians have turned (following Ehrlich) to the thought of “great sterilisers” for parasitic diseases, agents to destroy invaders directly, independently of any forces of the body. The conception of such drugs is a striking one, but few would maintain that any substance at present available fulfils these requirements exactly. There is none that has not some effect on tissues, whatever its power over the parasites, therefore, as yet, tissue reactions must be considered in handling these agents. If, however, the ideal be ever attained and it become possible to destroy pathogenic bacteria without affecting the body of the host, such “sterilising” agents will be gratefully used by the homœo-

pathist as readily as by any of his colleagues. But till this (unlikely) goal is reached there remain one or two points of interest.

In the first place, when the effects of these drugs are examined, a striking common characteristic appears. The principal agents believed to act as parasitocides are quinine in malaria, mercury and arsenic in syphilis, emetine in dysentery. There is not one of them that has not the power to produce on the body symptoms similar to those of the disease for which it is held to be specific. That is to say, there is a certain definite homœopathicity about all of them. But this fact inevitably suggests that, since the drug makes the body react in a way similar to the reaction to the disease (and since in each case the body reaction is probably an expression of body resistance), so the curative action of the drug is probably not direct action upon the parasite but indirect, exerted by encouraging the normal mechanisms of resistance. The drug is administered and the parasites are found to be dead (in favourable cases), but this result would equally follow an indirect or a direct action, and is no proof that only the latter has been involved. *Some* direct action there would almost certainly be after intravenous injections, but it is noteworthy that good results appear to follow concentrations of the drugs in the body fluids lower than those that are alone effective in test tubes, and this again suggests an action indirect and not immediate. But if the effect is not directly exerted on the parasites (when considerable doses would seem desirable), it may be that large doses are unnecessary, and that the body resistances can be stimulated with smaller quantities. Our predecessors used arsenic in Donovan's solution for syphilis, though its effect can hardly have been a direct one upon the spirochæte, and the experience of the homœopathist is that when arsenic is indicated in syphilis massive doses are not required.

A second consideration with regard to parasiticidal remedies is that vaccines designed for just such emer-

gencies are acknowledged to have an indirect action, and that it is not at all inconceivable that there should be drugs capable of setting in motion or stimulating a mechanism even as the vaccine is believed to do. There are experiments (homœopathic and non-homœopathic) that support this view. But vaccines have to be given with caution, and drugs (if such there be) capable of a "vaccine" reaction should similarly be given in relatively small doses.

Finally, therefore, it can hardly be contested that dosage is a matter for experiment. Hahnemann believed, and nearly all his followers come to believe, that drugs are effective in very small quantities, and only experiment can decide for or against them. Let it at once be granted that the most patient and sceptical observation is required of multitudes of cases before the relation of drug to recovery can be claimed as cause and effect. Nevertheless, most physicians are inclined to think that the relation can be established sometimes if not often, in spite of all the baffling possibilities of spontaneous recovery and cure by mental suggestion. The same kind of evidence as that which suffices to convince the physician that drugs can ever have values, must serve also to convince him as to the desirable dosage of them. There is no logical reason why experience which would convince for the worth of a tincture should not convince for the worth of a potency. It is simply a question of enough evidence: prejudice has no voice in the decision.

It is of interest to point out that since Sir Almroth Wright's classical discoveries of opsonins and their estimation, a dosage of tuberculin at least has come into vogue that is almost as immeasurable, except by its clinical effects, as a drug-potency. Doses of one ten-thousandth of a milligramme and much less are held to be effective. The judgment for their efficacy is given mainly on clinical evidence, and if the non-homœopathist may invoke it for one drug, homœopathists may follow suit for many, provided only that they are tireless in experiment and cautious

in conclusion. Of course there is always the evidence of increased anti-body formation when these substances can be estimated, but this resource is also open to the homœopathist, and in an increasing number of instances (to which reference will be made under the various drug headings) it has given most striking results. For the ordinary practitioner these tests are not freely available, and he has to decide by the clinical evidence; but when all is said this is the court of final appeal. The laboratory findings must be checked by the clinical results as well as the results by the findings, and it would profit the practitioner little to have favourable laboratory reports if his patient failed to improve. Every possible extension of laboratory experiment is desirable, but we do well to remember also that the laboratory was made for the patient, not the patient for the laboratory.

The value, therefore, of the infinitesimal doses of homœopathy rests on evidence, and there is no lack of it or lack of opportunity for any inquirer to supply more. But it remains yet to investigate the historical fact of the general preference of homœopathists in practice for the potencies. Nearly all inquirers follow Hahnemann's own road, using first ordinary (if small) material doses. Yet, like Hahnemann, they are generally led on by experience to the use of potencies and even (frequently) of very high ones, and this in spite of the fact that they know that these preparations may be a subject of derision to colleagues, who for all their ignorance of the subject, are nevertheless not wantonly to be flouted. This trend of experience is of itself evidence of the value of potencies, for no man lightly widens the gulf between himself and his fellow physicians. But it is worth while to pursue the matter further.

Hahnemann began, it seems, to make dilutions of tinctures in the attempt to avoid the aggravations of symptoms which, he found, often preceded a cure by the similar remedy; but he speedily discovered that this avoidance of aggravation by no means always

resulted. It is the common experience of many observers to find a preliminary aggravation of symptoms follow the administration of the *simillimum* in any form (even more frequently with high potencies), and within limits, it has come to be regarded as a valuable indication for a good prognosis, corresponding to the "negative phase" of Sir Almroth Wright's early opsonic investigations. But although Hahnemann did not succeed in avoiding "aggravations," he found other virtues in his very small doses which led him to call them potencies, and in these later conclusions again most of his followers confirm him. He found that in many cases (probably a large majority) the use of the potency gave swifter and profounder results which endured more permanently, and he concluded that his pharmaceutical methods in some way (or ways) changed the energy of the drug, making it more effective for his purposes. It is because his followers have had similar experiences that they generally add to their first experiment in the heresy of the homœopathic generalisation, the almost greater heresy of using the infinitesimal dose.

Now it is clear that no theoretical conclusions can decide the matter, and every man who desires a scientific opinion must experiment for himself, but it may be of interest to speculate a little upon the possible nature of potentisation. The ground must to some extent be cleared by remembrance of facts universally acknowledged. No man now believes that a drug acts simply by virtue of its mass. Large doses of Epsom Salts and so forth, or the hypertonic injections of Dr. Leonard Rogers, are attempts to use a physical action of a particular kind; ordinary drug actions are not conceived in this way. The increased drug power of grey powder over that of metallic mercury is a simple instance of the value of sub-division. Add the well-known facts of ionisation in solutions (which increases up to a point with progressive dilution), add the assumption of the colloidal state by substances under prolonged trituration and the extraordinary powers of colloidal

“solutions,” and it is not easy to deny that the earlier stages of homœopathic pharmacy may well be justified as procedures likely to increase the power of drugs. Incidentally also it must be remembered that a diseased tissue is (generally at least) a tissue more sensitive to stimuli. The stable equilibrium of health may be unaffected by quantities that are readily capable of influencing the unstable equilibrium of disease. The whole conception of the *simillimum* is that it shall be an agent to attack the most diseased tissues principally, and the smallest dose that can affect them effectively is large enough. This consideration can be set side by side with that of the possibly increased activity, as stimuli, of drugs prepared by the pharmacy of homœopathy, and reasons for choosing the lower to medium potencies are thus suggested, and experiment confirms them.

But experiment does more than this. It asserts a value, and tends to assert an increasing value, for potencies rising beyond the power of ionisation or of chemical activity to explain. Long before the thirtieth centesimal is reached any explanations of effectiveness based on atomic structure as at present conceived become difficult. Yet the clinical proofs of effectiveness are numerous and carefully observed. The only analogy that can be suggested (and it is put forward *only* as an analogy) is that of radio-activity. Experimentally radio-activity is a physical energy which if once present in a vessel through the sojourn therein of a radio-active substance, is transmitted thereafter apparently indefinitely to every successive volume of water with which that vessel may be rinsed out. Radio-activity in brief cannot be washed out of a bottle, and each successive washing is radio-active; the application of heat, however, will destroy the physical property. Similarly the potentiser finds that his successive potencies have the curative drug power, that this property cannot be washed out of a vessel, and that it *can* be destroyed by heat. The only suggestion, therefore,

that can be made is that homœopathic pharmacy causes at a certain stage the development of a physical force which can thereafter be transmitted to succeeding potencies. The explanation has two great difficulties to meet: First, the potencies of drugs have *specific* powers, differing for each drug, retaining the same indications for use (*i.e.* the same tissue relations) as the tinctures from which they are made, and this implies that this force has a range of variation in quality almost unlimited. Second, clinical experiment suggests that sometimes at least the higher potencies are more powerful than the less high (*e.g.* 200 than 30), and this is not very easy to explain. We might have expected that once the power developed it would not change much in vigour, might even (however slowly) lessen; the opposite seems nearer the truth. For the first difficulty we can only fall back on the remembrance of the infinite possibilities of ethereal wave-lengths for instance in light, and speculate whether, if similar variations could be postulated for our hypothetical drug force it might not be true that particular cases were best met by a particular "wave-length." For the second difficulty no explanation suggests itself. The whole subject remains obscure, awaiting patient experiment. But very few who have made the clinical experiments have been able to deny that the high potencies appear to have a real and sometimes a superlative power.

But it must not be concluded at once that high potencies are *invariably* more effective than low. It frequently happens that the high will relieve more effectively (otherwise they would never have come into use), but it also happens now and then that low potencies succeed when high have failed. Further, there are certain drugs that do not appear to "potentise" well, drugs which have apparently little or no action except in appreciable doses. If it be a fact that to potentise a drug means to develop a new energy in it, it is quite conceivable that some fact of chemical structure should prevent this energy from

becoming developed in certain cases. A uniform procedure is followed in potentisation, and there may be substances to which the procedure is not applicable.

More probably, however, the explanation of varying success as between "high" and "low" will be found in the nature of the work which the drug is expected to perform. We can conceive of a drug as a direct tissue stimulant. This is the conception of Schulz, and probably of Schüssler (the advocate of "tissue remedies"). Here the like remedy is chosen to ensure an effect upon the tissue principally diseased, but an appreciable quantity of it (although a small one) may be needed to stimulate it effectively, and repeated doses may be required to obtain a continuous effect. Dr. Burnett (following Rademacher, as Rademacher claimed to follow Paracelsus) advocated in many cases "organ remedies," by which he meant tissue stimulants, and it is interesting to observe that these were always given in appreciable doses. Dr. Hughes, also, prescribing when possible on a basis of morbid anatomy, has generally led his followers to the lower potencies. It is a common experience that low potencies and repeated doses are effective in acute diseases, and acute diseases have very marked tissue relationships (*e.g.* pneumonia, enteric, etc.). So, it will be argued, have chronic diseases (*e.g.* disseminated sclerosis, osteoarthritis, etc.), but in these the tissue relationship is one of destruction and the remediable stage is before the tissue relationship becomes defined to our powers of demonstration. The inflamed lung can become functional again, but not the sclerosed nerve tissue. To give a gentle stimulus to the inflamed lung tissue by small doses of antimony or phosphorus is therefore nor unreasonable, because natural forces are at work to overthrow the enemy that causes the disease; the question of cure is a question of tiding over an emergency, and practice confirms the expectation of benefit; but the spinal cord, threatened by some deep-acting enemy that will ultimately destroy it,

may be slightly helped by gentle stimulation, but inasmuch as the natural forces will rarely suffice to defeat the enemy, cure can only be found in some remedy that will enhance this more central mechanism of defence, and that must be a general, not a local, remedy. The distinction is not to be pressed too far, because in a pneumonia or an enteric, a remedy which enhanced the production of antibodies might be preferable to one that merely stimulated the tissue chiefly attacked, and experiment shows that such remedies exist; also without a doubt there are drugs which can affect certain tissues directly and in addition have the power to influence certain mechanisms, and sometimes one action and sometimes the other may be used.

But broadly it may be suggested that whenever the purpose of a drug is to improve the metabolism of a definite organ or tissue by gentle stimulation, low potencies and repeated doses are suitable, while if the aim is to influence a central mechanism of life, the higher potencies and infrequently repeated doses are of more value. By the term "life mechanism" is meant principally that system of action and interaction of internal secretions, of which in these times physicians catch a few glimpses, tantalisingly incomplete, but full of suggestion for future successes in treatment when knowledge grows and the glimpses become steady vision. Already we know that excess or defect of one or more of these secretions (*e.g.* thyroid, adrenal, etc.), will give rise to a symptom-picture of great complexity.

In chronic disease the resemblance of the *simillimum* to the given symptom-complex may be (probably is) due to the power of the drug to affect this internal secretion mechanism in a similar way to that disturbance which is causing the illness, and the administration of the remedy may (and probably does) bring about a change in the amount or quality of the secretion and so tend to restore health. It may be argued that as the secretion is the result of

tissue activity, the problem is still one of tissue stimulation, but it must be remembered that (apart from entire defect of secretion, as in myxœdema) the difficulty seems often to be a failure of secretion balance, of the proper adjustment of a mechanism, and a single touch, as it were, may suffice to restore this. When a secretion is tending to fail altogether, then a tissue stimulant may help, and when it has completely ceased, we can only hope to do what is so successfully done in myxœdema, viz., supply the missing secretion from the outside. The illustrations of the action of tissue remedies and life-mechanism remedies would be rather that in the first instance we are, as it were, making the best of a somewhat damaged structure, say a mill wheel, wearing out, but capable of being patched and mended so as to serve a while longer; in the second case we are dealing with a very delicate and finely adjusted mechanism, impeded by some grit or slight hindrance. If left to work against this impediment the mechanism will ultimately be destroyed, yet there is a time when the removal of it (even the use of a drop or two of oil, so to speak) will leave the machine once more running as smoothly as ever.

These speculations are only profitable as indications of the need for endless experiment and observation. Probably for every case there is an *optimum* dosage just as there is an *optimum* remedy. The factors that should decide our choice will be (a) the constitution of the patient, some individuals being so much more sensitive than others; (b) the nature of the drug, whether it lends itself to potentiation or not; and (c) the nature of the illness, whether it is mainly a gross tissue affection, or an interference with one or other of the subtler life mechanisms. It is impossible as yet to give full value to any of these factors, so that there is no way out but that of cautious experiment. One or two practical rules can, however, be laid down with some confidence.

(A) If a remedy is very well indicated by a close

symptom resemblance between it and the disease, choose rather a high potency and if possible watch the effect of each dose, treating each dose as it is usual to treat a dose of a vaccine, and not repeating until the effect of it is exhausted. (See chapter on "The Choice of the Remedy and Administration.")

An acute disease will probably demand more frequent repetition and often reacts well to lower potencies.

(B) If a remedy is well indicated, yet fails, try other potencies (both higher and lower) before changing the drug. In this connection another speculation may have some value. If the action of the lower potencies is a chemical (mass) action, and if potentisation implies the development of a new energy, so that the action of high potencies is a physical action (etheral vibrations or whatever), then it would seem to follow that there may be a point for each drug where the chemical action is disappearing and the physical not well developed. Potencies about this point would be more or less inert. The practical rule should therefore be to avoid the doubtful region, say from $3x$ to $6x$ for most drugs.

(C) If the resemblance of drug to disease is not very close, especially if there is any reason to think that one tissue is specially affected and that the drug has an "affinity" for that tissue, use the tincture or low potencies, and be prepared to repeat at regular intervals.

Finally, it is essential, if any progress is to be made in this difficult field, that every physician should be open-minded, swift to experiment and patient in recording his results and deducing conclusions, so long as he holds these tentatively and continually tests their validity. Probably there is a use for all potencies, from tincture to the highest ever made, and it is only by observation and experience that any trustworthy conclusions can be reached.

THE CHOICE AND MODE OF ADMINISTRATION OF THE REMEDY.

The basis of homœopathy consists of a knowledge of the effects of drugs upon the healthy ; the practical application of its general conception lies in selecting out of all the remedies known, the *simillimum*, the one whose symptom-complex most closely resembles that of the case to be treated. A century and more of practical experience has given some accumulated wisdom by which the beginner (if he will) can profit, but there is no gain in hiding the fact that the discovery of the *simillimum* is seldom easy, and may tax both patience and labour.

The remedies of the Pharmacopœia are now counted in hundreds, but records of exhaustive tests are available for little more than a fifth of the number, and there are few indeed to whose pathogenesis future investigation may not add something of value. There may be some overlapping in the *Materia Medica*, certain remedies being so closely alike in their effects that one of them may finally prove unnecessary, though the infinite diversities of patients make us slow to relinquish a drug that *may* prove, if only once in a lifetime, the *simillimum* for a case. But much more significant than possible duplications are the gaps left by the unproved plants and substances, any one of which may prove to be a priceless remedy. For any given case the physician can but seek the *simillimum* from among such drugs as he knows, and he has reason to rejoice that he can so often, with care, match his cases really closely with some one or other medicine.

It is not enough, however, to prepare a list of all the case symptoms and see what drug pathogenesis contains most of them. This method is both toil-

some and unintelligent. True, if nine out of ten of all symptoms of a case can be matched with those of a remedy, that remedy will usually prove curative, but when (as is all too frequent) there are gaps in the compared lists (symptoms present in the case record but not in the proving), then the problem becomes one of estimation of the relative value of symptoms as guides to prescription. Resemblance, the closest possible, there must be between drug and disease, but often there are several possible claimants to the place of the *simillimum*, and their rival claims must be weighed. When no one is clearly most like, and two or three present each some symptoms of the case, it is not enough to decide on the ground of arithmetical number of resemblances. Symptoms as indications vary in value, and a close resemblance in a few more important ones may outweigh a general resemblance in many of less significance. Some criteria of relative value are therefore essential.

Guidance has been sought in more ways than one, and different physicians incline, some to one method, some to another, a fact which (rightly) indicates that each may prove on occasion trustworthy. In other words, there are cases where different physicians, though stressing different features of a case, would be led to the same remedy, and there are cases where the application of no method gives clear results, because of deficiencies in our provings which leave us in ignorance of so much of drug power: on these occasions, when there must needs be something left to speculation, now one and now another method may prove helpful.

Dr. Hughes taught that the best basis for a good homœopathic prescription was one of similarity of morbid anatomy, an obvious resemblance between tissues affected by drug and disease. Practice based on this rule has proved very successful in acute and subacute diseases: in these it is generally fairly easy to determine the tissue affected, and if the drug chosen can damage the same tissue in large doses (as

revealed by proving or poisoning), it should prove a stimulant to the same tissue in a small dose: the diseased and struggling tissue may well be helped by a local stimulus (influencing blood supply and possibly cell reactions), and for the satisfactory result that often follows the physician may claim some credit. Professor Hugo Schulz works on this principle generally and his results confirm those of many homœopathists.

But the Hughes-Schulz method has its own difficulties which lead to many failures. In the first place neither for drug nor disease is the tissue-relation always incontrovertible. Series of post-mortem examinations reveal many errors in diagnosis, and clearly a diagnosis that decides wrongly as to involvement of particular tissues will lead to error in the choice of the remedy if the choice is based on tissue relationship alone: while for many drugs the morbid anatomy of overdosing is not absolutely certain, so that error is possible on this side also.

But apart from these obvious sources of failure, the whole conception of disease in our day tends to look beyond the gross tissue lesion to a new "humoral" pathology. The pneumococcus may be found in a subject either apparently healthy or suffering from some lesion (a naso-pharyngeal catarrh or whatever) that is not acute pneumonia. Yet in certain circumstances the pneumococcus gives rise to acute pneumonia and clearly (granted certain conditions) lung tissue is peculiarly susceptible to its attack. An explanation of these discrepancies is gropingly sought in the mechanism of resistance and anti-bodies, and it appears that a defect in this machinery may precede the illness which becomes recognisable when the lung is inflamed. But if this conception be relatively true, the patient may need treatment adapted rather to the defective mechanism of resistance than to lung tissue: yet it would not cease to be possible that once the lung were inflamed a specific local stimulant to its cells might aid them in their struggle to recover. Indeed it is not unlikely

that the "specific local stimulus" to the cells of the lung would also be a stimulus to the protective mechanism of the body. If this were so not only would the remedy be doubly justified but it would show that there is no necessary antagonism between the "tissue lesion" and the "protective mechanism" therapies.

There is yet another emergency conceivable. Resistance is largely a question of preparation of suitable anti-bodies and (possibly) of maintaining the due balance of hydrogen ion concentration in the blood. When attacked there seems frequently to be delay in preparing the defence, which allows a susceptible tissue to be assailed and symptoms of gross tissue involvement to appear. In the early stages of the warfare, any aid that can be given to the general resistance mechanism would seem desirable, but the results of untreated disease demonstrate that, all unaided, the resistance is generally sufficient to ensure ultimate recovery. When this is the case there may still be a danger of disaster from the breakdown of another organ which, though hardly directly attacked, may nevertheless from previous weakness be unequal to the stress of war. Thus the direct action of the pneumococcus on heart or kidney tissue may be small, but if heart or kidney be in any way defective a case of pneumonia becomes so much the more grave, and clearly in such a case heart or kidney needs treating rather than the lung which (*ex hypothesi*) can take care of itself.

It is therefore tolerably clear that to consider *only* the tissue mainly involved in disease may be frequently successful as a guide to the choice of the remedy, but such a one-sided survey will surely be insufficient for many cases. But when any attempt is made to distinguish the varieties of emergency, and find an appropriate remedy for each, what guide can be found but the "totality" of the symptoms, whereof the physical signs that point to tissue involvement are a part, but only a part. If the specific anti-body resistance wants a stimulus, there will be

symptoms that will not be found if it is the hydrogen ion concentration that is at fault, and in both groups of cases there will almost certainly be differences in the symptom-pictures if the cause of the defect lies in an underlying poison, such as syphilis or tubercle, gonorrhœa or alcohol. Again, in the case wherein the actual tissue upon which falls the obvious brunt of the battle is unequal to the strain, the symptom-complex should betray the need of help, or if it is a more distant organ that cannot bear the stress (as in war the civilians might fail while the soldiers retain their value and efficiency), the totality of symptoms should again show changes. If the Hahnemannian rule (that the indicated remedy is the one that most resembles in its symptomatology the given symptom-complex), be a sound one, then it matters nothing that our defective knowledge may be unequal to the precise determination of the emergency in any one case. If homœopathy be good practice we have to assume (and are justified by results in assuming) that similar symptoms in drug proving and disease, if similar not only in main outline but in colour and shading, are due to similar causes. Therefore if symptoms due to special reactions of bodily constitution under stress of disease can be matched with similar symptoms produced in the body by drugs, it can be concluded that the drug has the power to influence the constitution in a way similar to that in which disease is influencing it, and therefore in a small dose can stimulate the mechanism which in a large dose it hinders or destroys. If it be pointed out that here again we are ultimately only prescribing on a tissue relationship, since any and every secretion must be manufactured somewhere, the contention may at once be admitted. The essential point is that the drug should be chosen from all the symptoms and left to do its work upon the needed tissue (which may be often unknown to us) not chosen simply because of its known relation to the tissue whose involvement is most apparent to our present means of diagnosis.

The foregoing paragraphs apply mainly to problems of acute and subacute disease. But they none the less have a bearing on the treatment of chronic disease.

Chronic disease is chronic mainly because of a failure on the part of the system involved to carry resistance to victory. If the structures involved are not immediately essential to life, or if there is enough remaining relatively normal to "carry on" with, albeit in a somewhat broken-winged way, then the curious economy of our bodies appears to tolerate the presence of disease. It is true that many cases of chronic disease are conditioned by faults of metabolism, themselves the result of ill-considered nutrition. These problems are always personal, one man's meat is most truly another's poison, but they call for diagnosis and correction whenever possible, for a chronic disease that depends on a repeated cause of irritation can hardly recover till the cause is removed, though even in cases of this kind it is sometimes possible to readjust the mechanism of metabolism by drugs, and enable a patient to deal with food which previously poisoned him.

But apart from such obvious needs for removing prime causes of chronic disease, there remain many cases where the method of cure is clearly to increase if possible a defective resistance.

Hahnemann found (as all homœopathists find) that the exacerbations of chronic disease, the periodical "flarings up" of symptoms, were relatively easy to deal with, but that it was a much more difficult matter to prevent their recurrence. He came to explain chronic disease as due fundamentally to the presence of an underlying "miasm" (or more than one), capable of being inherited, and he regarded the symptoms which bring a chronic sufferer to the physician mainly as superficial manifestations of a deep-acting cause. Consequently he sought for (and believed he found) remedies correspondingly "deep" to deal with these conditions. They were (and are) prescribed on a basis of similarity, but the endeavour

in selection is to match rather the symptoms that indicate profound constitutional changes than those of the more obvious tissue involvement. These last have their value (often great and decisive value), but rank lower in importance than symptoms that express the mode of life reaction of the whole organism to the external world, and thereby indicate varieties of temperament and constitution such as make up individuality.

Hahnemann's "miasms" were three, but his actual classification is of little importance. He never used what he thought to be the nature of the poison itself as a guide to his remedy, but always the reaction of the patient as manifested in the symptoms. He placed syphilis as one great poison, for instance; herein he was right in so far as when syphilis is present (however latent), or even when syphilis has been present, the tissue reactions of the patient will be thereby modified, and whatever his immediate complaint, his syphilis must be considered in treating him: indeed his syphilis may be the ultimate cause of many groups of symptoms not in themselves characteristically syphilitic. The same is true of gonorrhœa, of tubercle, probably, of other germ diseases (*e.g.* pneumococcus and *m. rheumaticus*); Hahnemann's "sycosis" corresponds closely to gonorrhœa, and tubercle would fall under his heading of "psora," though many non-tuberculous disorders would figure there also.

To the extent to which we realise to-day the existence of these disease germs capable of prolonged sojourn in the body, giving rise thereby to a variety of lesions and of symptoms, we are conceiving chronic disease much as Hahnemann did when, in the days before bacteriology, he spoke of "miasms."*

But it is more fruitful for practice to think (as he always did) primarily of body reactions and only secondarily of body invaders. Not so much the germ,

* Hahnemann made a shrewd guess when he suggested the poison of cholera to be a living parasite infinitesimally small: he would have welcomed bacteriology. "*Lesser Writings*," Dudgeon's Translation, 1851, page 851.

as the mode and power of resistance to it, matters. These resistances, it is hardly possible to doubt, come in the end back to questions of internal secretions, their due quantities and balance and interaction with mineral salts: it is highly probable that there are infinite varieties of these adjustments, personal to individuals, counting indeed for much of bodily individuality. Some of these will be such as to render individuals immune to this or the other germ, others again will leave the possessors of them specially susceptible. These special conditions (making what the French physicians used to name a diathesis) can conceivably be inherited, and these (with all their dangers) would be the cases of inherited "miasms" of Hahnemann.

If, therefore, we regard chronic disease as curable at all by remedies, it will be to substances capable of modifying body reactions that we shall look. It can hardly be doubted that they exist. Outside homœopathic literature, evidence accumulates of the measurable effect on like processes of a number of substances (arsenic, yeast, etc.), and homœopathic observers have their own experimental evidence. Granted that they may exist, the homœopathist affirms that they are best chosen on a ground of resemblance, seeking always first for the closest likeness in what may be called constitutional or (as they are usually named) general symptoms. The majority of local symptoms (and this is true of acute as well as of chronic disease) are the results of tissue changes. A drug that modifies the life reactions of a tissue (as for instance arsenic and sulphur can specifically affect the skin) may be of great value as a cell stimulant, but in the endeavour to find a remedy to help the patient as a piece of life machinery, the local symptoms are less important as guides. If, for instance, some chronic sepsis has resulted in a chronic arthritis, the source of poisoning may be (with good fortune) discovered and removed, but if there were a resistance defect that first allowed the invasion to become permanent, or a metabolic defect that allowed

“toxins” to accumulate, permanent recovery would require that these defects be corrected. The symptoms that serve as guides to the remedy will be the general reactions of the individual, not the aches and pains and obvious lesions in the joints, although drugs that affect tissues in and near joints may be helpers of great value. Indeed, if it is possible to correct the fundamental defects by the “similar” remedy, it is often possible to obtain recovery when efforts to discover the true initial focus of poisoning have failed, because the system thus helped can at last deal with the (unknown) invader as it should have been dealt with at first.

It remains to discuss the nature of general and local symptoms. The first in the main are the reactions of the individual to external influences, to heat (of sun or fire), to fresh air, to wind, to rain, to damp, to dryness, to thunder, to close rooms; next the reactions to exertion and to rest, to sleep and to waking. The likings and dislikings of the patient for particular foods or drinks (fat, meat, milk, oysters, eggs, etc., etc.) may all show variations (unknown as yet but important) of constitution. A general state of hunger or anorexia, of thirst or of thirstlessness, may have value as a symptom. The mental characteristics of the patient from Hahnemann’s day have been held to point strongly to the choice of the true remedy. If well-marked permanent characteristics, they show a certain type of individuality, probably specially responsive to certain drugs (the humours of Ben Jonson and of so many other writers), and if they are the result of disease they indicate the needed help no less clearly. Degrees and kinds of anger and spite, of pride and melancholy, of aversion and distrust, all are of importance to the homœopathist. Throughout we follow Hahnemann in attaching special importance to the strange, rare, and peculiar symptoms. These, however apparently fanciful, may be, if genuine, priceless indications. Here let it be premised (and it cannot be too definitely or too often said) that *no* symptom is of value except in so far

as it is clear and well marked. If the patient is not sure or does not feel strongly about any of his reactions, then no stress need be laid on his answers. No leading question should ever be put to discover these reactions, but knowledge of them should be derived from observation and from the patient's own statements, supplemented by indirect questions or the evidence of friends. The "strange" symptoms to which the homœopathist will attach importance will often seem slightly ridiculous, but only because we lack the power to interpret them. Causes they must have, though we are as yet ignorant of them, and when they appear in drug pathogenesis they are no doubt due to disturbances similar to those that give rise to them in disease. Therefore, in seeking for the *simillimum* they have claims to consideration, and experience shows that they are of great importance.

Reflection on the foregoing paragraphs will leave the student in a position to appreciate practical advice as to the selection of the remedy. The homœopathist confronted with a case begins necessarily, as all physicians must begin, with the most careful investigation to determine the diagnosis, using naturally every resource to this end that modern science and modern methods have put at his disposal. Examination may reveal an illness depending on some cause for which surgical skill may be imperative, in which case clearly drug therapeutics must (if only for a time) take a secondary place, and apart from surgical emergencies diagnosis may reveal the need of adjuvant measures of massage, electricity, or hydrotherapy. The homœopathist comes to the consideration of the desirable remedy *last*, not because of its less importance (on the contrary), but because he must have, before he can prescribe, a clear vision of the field of action for drugs, and a knowledge that there is no mechanical obstacle to the drug power. Let there be no misconception of this point : homœopathic therapeutics are an *addition* to the physician's resources and not

a substitute for any measure of proved efficacy. They will take the place (with rare exceptions) of other drug giving (not highly valued even by those who practise it, if their statements are to be believed), and it is also true that there are cases which non-homœopathic physicians would turn at once over to the surgeon, which the resources of homœopathy can often deal with without surgical interference ; but here it is not that the question of the possible value of surgery is brushed aside, it is duly faced, and if the point is decided against the surgeon it is so decided only on definite expectations of greater help elsewhere.

Thus, having cleared the ground and assumed that problems of diet and nursing and air and exercise are considered and decided by the homœopathic physician as by his colleagues, there remains the decision as to the drug to be given.* This is to be chosen on the grounds of similarity between the symptom-complex of the disease and the symptom-complex of the desired remedy. The physical signs which are all-important in making a diagnosis are of much less value in choosing the remedy, and the subjective symptoms and individual reactions to outside influences (heat and cold, wet and dry, etc.) come into the foreground. The exceptions to this rule are the straightforward cases of acute disease (*e.g.* pneumonia, gastric ulcer, acute rheumatism, etc.) characterised by few symptoms except the actual physical signs of disease, and symptoms obviously dependent on the gross physical changes (dyspnoea in pneumonia, joint pain in acute rheumatism, vomiting in gastric ulcer). In these cases there is clearly definite tissue involvement, and a similar tissue prescription is probably the best. Even so, there will be room for some choice. Phosphorus, bryonia, antimony will have tissue claims in pneu-

* Homœopaths have always preferred a very simple and largely vegetarian dietary for their patients, and are enemies in general of tea, coffee, and alcohol in any (even slight) excess, as all these substances seem to delay metabolism, and consequently interfere with drug action. Coffee, in particular, seems to be an antidote to many drugs.

monia, and the choice must be made by the presence or absence of one or two less obvious symptoms, and similarly, two or three drugs will compete for choice in gastritis or rheumatic fever. But when the tissue relationship is the most obvious ground of prescription, the choice is seldom a very wide one, and a general similarity often seems sufficient to ensure help from the remedy. In such cases it is best given in tincture or low potency and repeated. Tissues appear to respond best to stimuli thus administered, although here, too, if the patient can be seen at short intervals (*e.g.* in hospital), the golden rule of the homœopathic prescriber, which can never be too often repeated, holds good and should be followed. This rule is, *as soon as definite improvement of symptoms sets in, the administration of the remedy should be stopped, and no further dose given as long as improvement continues.* When improvement has followed a remedy and the time appears to have come for repetition, it is often advisable to go to a higher potency. Explain it how we may, there is much clinical evidence to suggest that the action of the higher potencies is often (not invariably) more profound than that of the lower.

There remain two points to be considered in the acuter cases, wherein the symptoms are relatively few, and chiefly those arising from the tissue involvement. First, there are some definite indications (and we may at any time have more as experiment proceeds) that certain drugs enhance specific processes of body resistance. Arsenicum appears to be almost a general stimulant to phagocytosis, veratrum viride raises the opsonic index to the pneumococcus, phosphorus that to the tubercle bacillus, hepar sulph. that to staphylococcus aureus, and baptisia increases the agglutinating power to *b. typhosus*. Furthermore, before even Vaccine Therapy became general, homœopaths had begun to use potencies made from disease products, and the development of vaccination procedures has encouraged the use of potencies of "nosodes," as they are called in homœo-

pathic pharmacy. Potencies (low and high) of tuberculin, influenza and coli germs, of pneumococcus and others, are frequently used to obtain effects similar to those aimed at by the injection of laboratory vaccines, and there is plenty of evidence that the preparations of the homœopathist can often give good results. When, therefore, a bacteriological diagnosis can be made, should the appropriate nosode be given, or the drug which is known to affect the specific resistance mechanism? The answer with regard to the nosode, is that a dose or two at not too frequent intervals of the corresponding preparation may easily do good, and is unlikely to do harm, provided the effect of each dose is watched as carefully as any injection of vaccine. Indeed, the nosodes can be used in acute conditions when most physicians would hesitate to inject the more "massive" dose of the ordinary vaccine, and the use of them can be (if desired) combined with the use of a tissue remedy chosen on the grounds previously considered. But as regards the choice of baptisia in enteric or veratrum viride in pneumonia, these drugs have their characteristic symptom-complexes: when the disease presents a parallel to them they should be given at once, but not on pathological grounds alone. Homœopathic experience tends to show that if they are needed for recovery they will be indicated by the symptoms. The only reason why the nosodes are given with less exactitude is that they are relatively unproven. Those (*e.g.* tuberculin, lueticum) for which long clinical experience has worked out a kind of proving, can be treated even as baptisia and its congeners, and given on symptomatic grounds rather than bacteriological.

The second practical consideration concerns the use of remedies in alternation. The giving of an intercurrent dose of a nosode has already been alluded to, but in general homœopathic practice it is ordinary to give two remedies in alternation for cases wherein no single remedy seems to cover the symptom-complex satisfactorily. It must at once be admitted

that practice of this kind often gives good results, and when the physician is aiming rather at a tissue stimulation than at a fundamental life mechanism, it is frequently convenient. But it is open to grave objections which should make it a practice "more honoured in the breach than in the observance." In the first place, in the event of success it is impossible to allocate the praise to either drug with confidence, or in the event of failure to be sure that it may not have been due to drug antagonism rather than disease stubbornness. Thus, knowledge becomes less definite and the practice of medicine loses.* Secondly, to give two drugs in alternation is generally a confession of the lack of knowledge to determine which is the better indicated, and it should be the aim of the physician to correct this deficiency. Closer examination will generally indicate which remedy has the greater claims. Let it have the first chance to cure. If it fails, re-examine the symptoms and try again. It must often happen that when two drugs are given, cure is really due to one only. To determine this is to make a contribution to clinical experience.

To sum up then : in cases of acute disease, examine the entire symptom-complex, noting especially any strange or peculiar symptoms, any general reactions to outside influences (heat, cold, etc.), any mental and temperamental symptoms, and lastly all the local symptoms, whether obviously dependent on the tissue involvement (*e.g.* character of pain, cough and fever, etc., in pneumonia) or accompanying it (*e.g.* skin eruptions, etc.). If the totality indicates any drug clearly, give it preferably first in a medium potency (12-30), and as far as possible watch the effect of each dose, repeating at first every two or

* The objection of the homœopathist to mixtures of drugs is an objection to the combination as *unproved* and therefore incapable of exact choice. Doubtless satisfactory mixtures could be made, but before they can be used with exactitude they must be proved. Drug alternation is not drug mixture, but it is not far removed from it, and there is little knowledge as to the possible interactions of remedies which have exact enough indications when given singly.

three hours.* If improvement sets in, well and good, stop the remedy, or at least lengthen the interval between doses while improvement lasts. If improvement ceases, reconsider the case, to determine if perhaps the indications now point to a change of remedy. If they do not, repeat the first chosen drug, and preferably in a higher potency. If, however, a drug, apparently well indicated, fails to relieve in the first selected medium potency, give it a trial in a much lower potency before deciding that it has been wrongly chosen. As the case proceeds, however satisfactorily, fresh indications must be constantly sought, especially any that may point to some fundamental condition of constitution in need of correction. When a remedy of relatively swift and temporary action (*e.g.* aconite, belladonna, gelsemium) has brought the immediate condition well towards recovery, a corresponding remedy of more profound action will nearly always be of benefit, but there should never be any haste to give any drug so long as progress is steady.

In chronic disease the search for the best remedy is more difficult. It is of the utmost importance to take enough time in considering the choice. To put a chronic disease (not showing any symptoms of pain or discomfort that call for speedy relief) on a placebo for a while is often very desirable. It gives time for suitable study of the case, and it also gives opportunity for the effects of suggestion and so-called mental influence to become apparent. Every physician knows that wonderful results are thus obtained now and then, and it is as well, scientifically, to give such influences fair play, uncomplicated by drug therapeutics. If, however, the *simillimum* is apparent readily, it should never be withheld, for although the attempt to explain all therapeutic successes in terms of "suggestion" has often been made, the explanation has never been conclusively established.

* Unless the physician has deeply studied in the *Materia Medica*, a dictionary of symptoms, a so-called Repertory, will be necessary to determine the *simillimum*; nothing but prolonged experience will enable the physician to dispense with this, and there should be no hesitation in using it.

In choosing the remedy for a case of chronic disease, the essential is a complete symptomatology. The question of diagnosis and adjuvant treatment is of course to be considered with the same thoroughness as for acute disease, but for the selection of the remedy let it be said once more, subjective symptoms, and especially any reactions to external influences (heat, cold, damp, thunder, etc.) are of great importance. Here a necessary proviso must be made, necessary for that matter in all attempts to choose a remedy for any case of disease. A symptom is of value precisely in proportion to its "weight," to the degree in which it is marked, and in selecting the remedy, if a symptom is prominent in the case, it should be equally prominent in the drug pathogenesis. Remembering this, then, every "curious," unusual symptom becomes of great importance as a guide to the remedy. A symptom that is ordinary in one kind of disease may be unusual in another: thus, it is not at all wonderful that a febrile case should be thirsty (though even so the character of the thirst may have a distinctive value), but for a febrile case to be without thirst is unusual, and such a symptom should have prominence. It is common enough for sensations to be described as "burning," but when burning seems to accompany every kind of sensation in a case, then the symptom gains in importance. Symptoms are often conveniently classed as general and local, but the distinction need not be forcibly maintained; it is generally easier to realise which symptoms are consequences of gross physical tissue changes (these are of *relatively* less importance) and those which have no such obvious basis. These, in many cases indicate quality of life resistance and adaptability, and representing thus the resources of the patient, are better taken as guides to his remedy.

Cases fall into two great classes :

(A) Those with many symptoms both objective and subjective, both general and local.

(B) Those with objective symptoms of tissue

change and others clearly dependent on the changes, but with few subjective symptoms.

In choosing a remedy for a case in class A the course is now tolerably clear. If the patient presents very well-marked reactions of a general kind, say an intense aggravation of suffering from heat or cold, or a marked aggravation at a definite time of day, these symptoms can confidently be used to narrow the field of selection, eliminating drugs which do not present them. Then choose another group of well-marked symptoms (general ones if possible) to narrow the choice further. Presently (the aid of the repertory—symptom index—being all but essential, as a rule) the *simillimum* will be found to lie between some three or four drugs, even if one does not at once stand out above all the rest. To make the final selection it may be necessary to compare in detail the pathogenesis of the drugs with the case symptomatology, but often this labour can be spared by the use of the minor local symptoms, which may at once give the clue required. Having finally decided, give a single dose (or two at a short interval of hours) of a potency not lower than the 30c., and give it a reasonable time to produce an effect. The results may be entirely negative, or positive in a variety of ways to be presently discussed. If no result *at all* follows after ten or fourteen days, the drug is probably wrongly selected* ; there is nothing for it but to restudy the case. In so repeating the investigation, even more attention than at first should be given to possible inherited tendencies, to possible latent disease, such as syphilis, gonorrhœa and tubercle, to possible drug or diet habits, which may be antidoting the remedy. If considerations of these kinds bear any fruits, treatment by a nosode (virtually a potentised vaccine) may be necessary, or previous drugging may need to be combated. Especially may this be necessary when purgatives and analgesics have

* The chance that the case is incurable, having no power to re-act, has to be considered, but such cases, as will be seen later, are very seldom those now being considered, which present a good variety of symptoms.

been much taken, and remedies like sulphur, nux vomica, or pulsatilla are often of great value for this purpose, even in the absence of any very close indications for them. However often the physician fails to produce an effect, yet if the case has a well-marked symptomatology and the tissue change has not progressed far in the direction of destruction (*e.g.* sclerosis), it is salutary for him rather to conclude that the fault lies in his inadequate application of the homœopathic principle, and to devote yet more study and patience to the task.

So much for a negative result to the first prescription. A positive result may be, perhaps (a thrice fortunate one but often obtained by the good prescriber), an immediate improvement. In this case the choice of the drug is justified and all that remains now is not to spoil the case by injudicious handling. A chronic case that is of months' or years' duration must be allowed time to recover. Never repeat the remedy as long as improvement continues ; when improvement ceases give the remedy in the potency first chosen ; but if improvement does not follow this time give a higher potency and so proceed, remembering that practice suggests (inexplicable as the results are at present) that as a rule the higher potencies maintain their effects for a longer time. If the general course of a case is towards recovery, the minor incidental aches and pains should not be separately prescribed for ; it is a great mistake to multiply remedies. At the same time, there is evidence that if an intercurrent symptom (*e.g.* sleeplessness or neuralgia) is very troublesome, and apparently unaffected by the main remedy which is improving the general condition, then there is no harm, but only good, in the use of an intercurrent remedy to relieve it. This should be chosen from similarity to the particular symptoms in question, and will often be found to be related to the main remedy (as aconite is to sulphur) in curative power. It should be given, however, in a *low* potency, and never *lightly* given at all. From time to time the

symptom-complex should be reviewed as a whole, for changes may occur in it which will call for a new remedy. It is a curious but frequent experience that in the course of a recovery there may be a return of symptoms of old, and often forgotten, previous troubles. These are not to be regarded as indications for a new remedy if they can be so identified. It is a general rule that symptoms disappear curatively in the reverse order to their appearance, the last observed being the first to go.

Instead of immediate improvement there is sometimes seen a marked aggravation of symptoms. If the aggravation is mainly of local symptoms (*e.g.* pain, or intensification of a skin affection or joint swelling), and if simultaneously the patient has (as often he does have) a sense of improvement, then the aggravation is to be regarded as favourable rather than the reverse. A parallel phenomenon is the negative phase of Sir Almroth Wright, after a vaccine injection, and though it calls for caution, it is not, unless very severe, an untoward incident. Following a dose of a drug, it will almost certainly pass over into an improvement (positive phase), which improvement is then to be treated exactly as described in the foregoing paragraph for an initial favourable response. Only, since the patient has shown a tendency to become temporarily worsened, even more care is needed in repeating drugs and in using higher potencies.

If, however, the aggravation does not pass over into amelioration, and particularly if the symptoms that become worse are the more deep seated ones, the outlook is more grave. There are undoubtedly certain cases (*e.g.* advanced phthisis) wherein there is not vital energy enough left to eradicate the disease, but where a careful husbanding of the strength will carry the patient along, albeit in a somewhat inefficient way. To give a deep-acting remedy, like silica or sulphur, to such cases, is occasionally to induce a violent reaction, which uses up a great deal of the patient's strength, yet, not being enough to produce

cessation of the disease, leaves him ultimately worse than before he was thus treated. Tuberculin treatment in other hands than those of homœopathists has led to similar failures. The true wisdom lies in exercising great caution at first in testing the ability to recover of any patient concerning whose powers of reaction there is any doubt. If a deep-acting remedy is indicated, do not use it at first in potency higher than the 12th, and only proceed higher with much care. If there is reason to believe that recovery is impossible, there is still much to be done by attacking the problem from the tissue side (the local symptoms). Many a chronic tuberculosis of the lungs, incapable of true arrest, can be carried along in comfort with remedies like arsenic and stannum, iodine and sanguinaria in low potencies and repeated doses. Symptom similarity remains the guide to the choice of the remedy.

If the danger has been incurred and the aggravation persists, it is sometimes possible to antidote the effects of the remedy with another drug. Occasionally even when the aggravation is not regarded as dangerous, it involves so much suffering that it has to be combated temporarily. Many drugs have more or less specific antidotes in homœopathic therapeutics, and *nux vomica*, *pulsatilla*, *coffea*, *camphor*, etc., are general drug antidotes.

Finally, there are cases (*e.g.* advanced cancer) wherein subjective symptoms are few and unimportant, and local symptoms and gross physical signs hold the field. In these the disease has reached what is often called the "ultimate" stage. Broadly speaking, a symptom-complex that has many subjective symptoms in it may be regarded as evidence of the body reaction to disease; when this reaction is poor or absent the chances of successful cure are not good, and palliation may be the only resource. In any case, the attention will now be directed rather to low potencies and tissue remedies and frequent repetitions. Dr. Cooper, indeed, records some very striking cancer cases recovering under rare doses of

strong tinctures of certain drugs, and though the grounds of choice appear to some extent empirical, the aim is to employ similarity as the clue to them (notably the use of ruta for rectal carcinoma). If all else fails, and pain has to be relieved, the employment of morphia is naturally a resource, but homœopathists find that by studying the character of the pain they can often find a similar remedy more effective than morphia with none of its attendant evils. It is fair to say that, so long as any symptom similarity whatever can be found between the disease and any drug pathogenesis, that similarity affords the best guide to the most suitable remedy.

In all arts old men speak of laws, using the laws of harmony to browbeat the young composer, the laws of prosody to check the budding poet. In these concerns (and also in others) the word law is a dangerous one. Even in science it can mostly stand for little more than a brief way of recording general experience, not hitherto subject to exceptions that cannot be accounted for. Thus we should do better to call the law of similars a generalisation from experience, valid within the bounds of our knowledge, and, in regard to the practical application of it, even more caution is required in laying down instructions and rules. The "laws" of the arts are actually the accepted practices of the masters. Each new genius has a way of breaking the laws of his predecessors, or at least widening their bounds, till his rebellion succeeds and his practice, which at first roused intense opposition from the pedants, becomes a new weapon for the armoury of the pedant's never-failing progeny. Thus Mozart and Beethoven are denounced as blasphemous innovators until presently their practice is used to confute Wagner. History therefore gives little encouragement to those who wish to stereotype the practice of an art, even the art of therapeutics, and it would be an ill service to the student to leave this chapter of practical instruction without a reminder that it represents the results of experience, but no more. The rules indicated above are those

that the most careful and practised prescribers have found most generally valid. But greater knowledge and wider experience may lead to more effective practical rules, and it is for the physician not to fall back supinely upon the judgments of others, but to make his own rules, and, if he may, add a stone or two to the temple of therapeutics. Hasty dogmatising has long been the curse of medicine. Our ignorance is still vast, and we still grope in a darkness that is not made more penetrable by hailing every will-o'-the-wisp as the dawn of day. Humility, patience, and freedom from prejudice, which will lead to endless experiment and courageous record of experience can alone be counted on to forward the time when the medical profession shall live in the full sunlight of assured knowledge.

MATERIA MEDICA.

ACONITE.

Aconitum Napellus—*Monkshood*: Tincture of whole plant (including root), when beginning to flower.

Aconite had an old-time reputation for causing sweating and relieving certain cases of rheumatism and sciatica, but precision in its use is due to the provings of it on the healthy which were made by Hahnemann. It is most closely associated with the early progress of homœopathy (and early antagonisms thereto), because largely by its use, Hahnemann and his followers were able to dispense with the blood-letting fashionable till after the middle of last century for almost every disorder. Modern research has isolated an alkaloid aconitine from *aconitum napellus*, and allied species yield similar substances. Delphinine, the alkaloid of *staphisagria* is similar in effect to aconitine but less poisonous. Aconitine is a very deadly poison: many of the symptoms of the aconite pathogenesis are due to this alkaloid; but there is little doubt that other constituents of tincture of aconite count for a good deal. Specially to be noted is the presence of Phosphate of Iron (*ferrum phosphoricum*): the provings are of the tincture, and when they are suitably matched with cases, it is the tincture or a potency of it that should be preferred as the remedy.

Aconite first stimulates and later depresses sensory nerve endings, more especially those of common sensation. As a result, reflex sneezing, coughing, salivary secretion, and vomiting occur; but some stimulation of medullary centres also is not unlikely. It seems to act upon the circulation by first (in relatively small doses) stimulating the medullary inhibitory heart centre, and so producing a slow pulse; possibly also it acts on the vaso-constrictor centre; at any rate, as will be seen, the provings

bring out a marked condition of relatively high tension. Aconitine experiments have been mostly made on animals, and with increasing doses, so that the finer effects of the more gradual provings cannot be expected. Large doses of aconitine appear to act directly on the heart, producing a quick, irregular pulse, with lessened conduction of impulses and finally fibrillation of the ventricle and death. In these circumstances the blood pressure tends to fall, with occasional temporary rises to a fair though not great height. The respiratory centre is affected early and directly, and its depression causes dyspnœa and sometimes death before the heart fails.

Since the publication of Dr. Ringer's Handbook of Therapeutics (a volume of perennial interest to the homœopathist as a "conveyer" of certain instances of homœopathic practice), aconite has been praised by orthodox physicians for febrile conditions, but its use seems if anything to be less frequent among them to-day. The explanation of its disuse has a certain significance. From Hahnemann onwards, the homœopathist has known that aconite is of great value in febrile disorders whenever the rise in temperature is associated with definite symptoms, whenever, in fact, the case as a whole is "similar" to the aconite provings. Its value is as great to-day as ever; but if other aconite symptoms are not present, the mere presence of fever is not sufficient indication for the remedy, and its use will be followed by disappointment. It cannot be too often reiterated that homœopathy seeks remedies for individuals, not for the names of diseases, and to use aconite as a "febrifuge" irrespective of any other symptoms is neither homœopathy nor good practice. Dr. Ringer gave quite precise indications for its employment, but the haphazard routine use of the drug has led to its being discredited by many, and high authorities to-day have no recommendation for it; yet for the homœopathist it reigns as supreme as ever, an invaluable remedy for suitable cases of disease. Its true spheres of action must now be made clear.

Aconite is a remedy of powerful but short-lived action, and correspondingly is most suitable to diseases that set in suddenly and violently, but run a brief course. The violent storm which quickly passes is the type of disease to which it corresponds most closely. It will be found of value in a few more chronic cases (neuralgia, etc.), when detailed symptoms of drug and disorder can be matched, but most often it is called for in acute and sub-acute diseases, and among them those of sudden onset and immediate violence.

An acute disease is one wherein the body resistance is swiftly mobilized, wherein the issue is not long in doubt, and victory for one side or the other a matter of days. Such a disorder is, as we say, a self-limited disease, and the possibilities of natural recovery considerable. Nothing is more difficult in therapeutics than to estimate the real effect of drugs in such a case, but the very power of resistance that causes the difficulty of judgment is an enormous enhancement of the physician's ability to help. Since recovery in any case can only take place through a pre-arranged bodily machinery, and since the effect of any remedy can only be exerted along this pre-existing channel, it is clear that the more powerful the machinery the better it may be influenced by a drug stimulus. The body generally possesses reserves of resistance to disease, and, broadly speaking, drug therapeutics are attempts to use these reserves; in acute diseases they are usually being mobilized fairly effectively without the help of remedies, but clearly there is room for efficient action if it is rightly directed. In some cases it is conceivable that the extra stimulus of a well-chosen remedy may make the difference between victory and defeat; in many more cases it affects the speed and ease of recovery, and judgment as to the value of a drug in many acute diseases will depend more on the character of the process of recovery than on the bare result of life or death. If there is no adequate machinery of resistance to respond, no drug will avail, since no drug brings in

any new force, but only influences pre-existing forces. But a drug stimulus may bring the forces to bear more swiftly, and may even sometimes bring into action reserves, which without its aid would be unused, or used too late. For with such knowledge as we possess of bacterial diseases it is readily conceivable that if the (necessarily limited) power of resistance could be used at once in great volume, it might overwhelm the enemy, but used in dribblets against an increasing foe may prove ineffective. Yet the total power used might well be less in the first instance than in the last. Vaccine therapy works with some such conceptions behind it, and drug therapy (at least in homœopathic hands) is influenced by similar considerations.

Aconite, then, is pre-eminently a remedy for acute conditions. Fever will nearly always be present, of a kind to be presently described. Now modern research has brought us to consider fever largely as a reaction to disease by no means always (or even usually) unfavourable. The practice (still too common) of attempting to reduce a fever without regard to any other symptoms is seen to be faulty when it is known that anti-body production is frequently more effective with a raised temperature. Fever is of many types, and wisdom seeks to adjust the appropriate remedy to each type.

The mechanism that regulates body temperature is complicated, and a high thermometric reading may be due (no doubt is due) now to one cause, now to another. But when it is a response to a call for increased anti-body production it is likely that the result is obtained through the action of the cerebral heat-regulating centres, and there are grounds for thinking that aconite influences these centres. Homœopathic experience finds the drug to correspond to acute affections in apparently strong, healthy, often full-blooded subjects, where the attack of disease meets with a violent response. The young need it more often than the old and respond to it swiftly. After its successful administration the tem-

perature often falls at once and the storm subsides. Two explanations are possible: if the rise of temperature was to enhance anti-body production, its rapid fall after aconite (with return of the patient to health) might mean that the aconite had so encouraged this process that the raised temperature was no longer needed. But since the drug appears to act mainly on the cerebral centres this is unlikely: it is more probable that the initial rise was, strictly speaking, unnecessary, that the body was equal to the emergency without it, and that the disturbance was of the nature of a false alarm. The effect of aconite may then be to quiet this needless disturbance thereby leaving the field clear to the forces of recovery. The nearest analogy would be that of a beleaguered city with a frightened civil population whose disturbance hampers the garrison. Aconite would correspond to the forces of persuasion and confidence that should quiet the civilian anxieties, and leave the soldiers to do their own work more effectively.

Whatever the final explanation, the homœopathist is seldom in doubt as to the true indications for aconite. They were accurately summed up by the late Dr. Hughes in the one word "tension." There is tension of the arteries with the pulse full, strong, rapid, sometimes finding relief in hæmoptysis or arterial hæmorrhage from the nose. (When ferrum phosphoricum is indicated there is even greater tendency to hæmorrhage, and the pulse, though full and rapid, is not of so high pressure.) There is emotional and mental tension showing in great anxiety, restlessness, fear of death. The last is specially characteristic. It is often a quite unwarranted fear, out of all proportion to the gravity of the case to the physician, but the best subjects for aconite are frequently those who are seldom ill, and it is notorious that these patients are nearly always inclined to be unduly alarmed about their condition and chances of recovery. The anxiety causes much tossing about and restlessness, with considerable mental exaltation

or violent delirium, though the latter is more characteristic of another great remedy for acute conditions, belladonna. The patient may predict the hour of approaching death, but the prediction is only a symptom of the fear and anxiety, not a piece of clairvoyance. There is much heightened sensibility : pains appear to be severe (numbness may replace pain), and the special senses respond to stimuli more violently than is normal. These cardinal symptoms, therefore, restlessness, anxiety, fear, and exalted sensitiveness, with rigor and a sharp rise of temperature, and a full, hard pulse, are the main features of the aconite case. They are especially apt to be found in patients of a quick, lively, sanguine temperament, who enjoy as a rule good health, and they are apt to appear in disorders that follow injury, shock, fright, surgical operation or chill, *especially the chill of cold, dry, bitter winds*. The mechanism disturbed by these external causes appears to be largely that of the adrenal secretion, and the heightened pulse tension of the aconite case is another hint that adrenalin may be playing a part in the pathogenesis. Since the days of Pasteur it has been known that chill is an accessory, not the immediate cause, of such illness as pneumonia, or acute rheumatism, but the observer will frequently find a marked difference in symptoms that follow exposure to cold east winds or the wet south-west weather. The body reactions clearly differ in the two cases, and consequently often require different remedies. It is the symptom-complex that follows the chill of the bitter east wind that so often requires aconite, prior to the development of any localised inflammation.

Aconite symptoms are common in children, among whom febrile attacks are frequent, which readily yield to the drug and do not proceed to any definable disease. But the early stages of measles, or scarlet fever, may present symptoms resembling those of aconite : the administration of it then will not prevent the development of the disorder, but will generally rob it of much anxiety. If measles or

scarlet fever call for aconite at first and receive it, the case usually proves a mild and straightforward one, though often requiring other remedies as new symptom pictures appear. On the other hand, influenza, diphtheria, enteric, seldom call for aconite. A violent reaction is usually absent with these profounder system poisons, and their characteristic remedies are to be sought elsewhere. Spasmodic laryngitis in children will often require it: sudden spasm figures prominently in the aconite pathogenesis. Acute pneumonia, pleuritis or rheumatism may set in with general symptoms that indicate aconite. It is rare for aconite to suffice for the whole course of such an illness, though occasionally a lobar pneumonia will seem to respond marvellously. *Veratrum viride* is a drug characterised by great arterial excitement, muscular twitching and spasm, and this remedy is reported experimentally to increase the opsonic index to the pneumococcus. Its use at the beginning of pneumonia undoubtedly sometimes aborts the attack. Occasionally a similar effect seems to follow the use of aconite. In any case, if aconite be well indicated in commencing pneumonia, pleurisy, or acute rheumatism, its use will greatly relieve the symptoms (replacing blood-letting), and the drug that next becomes indicated as the symptom-picture changes, acts all the more effectively. After exposure to chill a dose or two of aconite is a sound prophylactic measure, and it quickly masters symptoms (physical or emotional) following fright or injury.

Good subjects for aconite are frequently full-blooded, even plethoric, and in later life when arterial tension rises and apoplexy becomes a possibility, the drug is often called for to meet emergencies. Its effect is too transient to deal with the actual arterial changes for which remedies like barium are better adapted, but it is invaluable for times of special stress. After cerebral hæmorrhage, if tension remains high, it will deal with it at least as well as blood-letting.

There is some evidence that after prolonged and gradual poisoning, aconite affects finally the spinal motor centres, and it has been therefore recommended for acute anterior poliomyelitis. Broadly speaking, homœopathic experience does not find it very frequently indicated in this disease, but if the general symptoms called for it, its possible pathological tissue-relation would add weight to the decision. Failing the general symptoms, it is doubtful if the pathology alone should be allowed to determine the choice of it.

Dr. Hughes valued aconite for acute (ulcerative) endocarditis on the ground of its (undoubted) direct action on the heart. But here again most homœopathic observers agree that it is seldom symptomatically indicated and its use is disappointing. Such endocarditis is a bacterial disease, and the main hope lies in combating the cause through the body resistance mechanisms. There is no evidence that aconite affects these : any effect it could have would be as a possible direct stimulant to the heart, that is to say, palliative, not curative.

Not only the effects of chill, but those of great heat, cause disturbances that may be corrected by aconite. Its characteristic tension may be found after sun-stroke or headaches from exposure to the hot sun : even sudden summer diarrhœa in children may need it and yield to it. It is the suddenness of attack and symptoms of tension that suggest the remedy.

Sudden disturbances of special senses (especially that of vision), dependent probably on vascular temporary defects (high tension), can be swiftly relieved by aconite, and sudden inflammation of the eye structures after exposure to strong light or other stress will be benefited.

It is a great reliever of pain, especially when recent, aggravated by exposure or emotion, and accompanied by the characteristic restless tension. The pains that call for it are very severe : tearing, cutting, accompanied often by numbness or tingling. They may follow the course of nerves, or centre round

joints : joint pains are worse from motion, and rest generally relieves, but about midnight there is usually a severe aggravation, and the characteristic restlessness prevents relief. The restless insomnia of the aged, even without pain, is often much helped by aconite.

Generally speaking, the patient who needs aconite does not feel chilly or desire heat. Fresh air relieves headache which is worse in a warm room. With fever the warmth of the bed is intolerable, and the bed-clothes will be thrown off. Unquenchable thirst is a prominent symptom : everything but water tastes bitter.

Sulphur is the deep-acting remedy which has the closest relation to aconite, and whenever a case has indicated aconite and done well on it up to a point, sulphur will generally complete the cure. Sulphur may also be used if aconite seems to be indicated yet fails to relieve.

Aconite being a remedy of swift action and limited range requires as a rule, somewhat frequent repetition. It has been praised in all potencies and appears to answer indications in all.

ACTÆA RACEMOSA.

Cimicifuga racemosa—an American plant of the order *Ranunculaceæ*. The tincture is made from the fresh root. A resinoid substance, *Macrotin*, has been extracted from the root, and triturations of this have been used.

This remedy is one of the later additions to the *Materia Medica* ; it has proved to be one of considerable value, and clinical experience has made more precise the indications of the (not very extensive) provings. It is all but unknown to non-homœopathic medicine.

It has a very marked effect upon the nervous system, rendering the nerve centres (both cerebral and spinal) irritable. After the irritable stage, depression follows. There is some congestion of head and face as with belladonna, but less marked. The generative organs are notably influenced, especially in the female sex, and it is conceivable that the nervous symptoms are secondary to some alteration in the quantity or quality of the internal secretions arising from these tissues. It is at least a fact that symptoms referable to the pelvic organs are generally prominent when actæa is well indicated.

The mental symptoms are in the main those of depression, anxiety and fear. Fear of death is nearly as prominent a manifestation as with aconite. But the prevailing mood of gloom is yet an unstable one; an unbalanced hysterical condition with a tolerably constant reversion to melancholy is a fair description of the usual and characteristic mental state. The melancholy is largely associated with fears of the nature and extent of the illness, a hypochondriacal melancholy, though Hahnemann's shrewd *dictum* with regard to hypochondriasis holds good, that the sufferer exaggerates his sufferings but does not invent them; they are therefore to be noted with due care.

Actæa is one of the "loquacious" remedies, like lachesis—incessant rambling speech is a good symptom. There is inability to fix attention.

Emotional causes, such as disappointment, anxiety, fear, are often responsible for symptoms, especially disappointments in the affections.

The headache of actæa is a characteristic and prominent symptom. It is one frequently encountered when pelvic lesions are present. In its most distinct form it appears as intense pain felt simultaneously behind the eyes (relieved by pressure on eyeballs), on the vertex and in the nape of the neck, but one or other of these spots of maximum intensity may fail to be affected. The nape of the neck is a specially characteristic site of pain, which, when

present, may extend into the occiput, or cause stiffness of the neck muscles with retraction of the head, or sensitiveness of the spine with shooting pains. The intense pain in the eyes has caused the drug to be used in iritis, especially the so-called "rheumatic" variety, but there is no pathological evidence (as yet) of the power of the drug to affect the iris deeply. The pains in eyes or head are always worse from motion (as with bryonia), but relieved in the open air, and worse in warm rooms. This is the more noteworthy as the patient on the whole is very sensitive to cold air. A similar inversion of reaction of head and general symptoms to cold air is found with arsenicum; like arsenicum also, actæa symptoms are worse at night.

Actæa is characterised by pains elsewhere. As a rule, they are sudden, lancinating and sharp, though often there is a general bruised feeling that persists. They are of the kind usually called "rheumatic," and the drug is often indicated in those who have had typical attacks of rheumatism. The areas more frequently attacked (besides the head and neck) are the loins and vertebral joints and the cardiac region and the inside of left arm. With this last there is often palpitation or feeling as though the heart stopped. Numbness may follow this pain down the arm. Touch and motion worsen; warmth as a rule relieves. The pains and headaches of actæa are apt to be associated with the voiding of profuse pale urine (*cf.* ignatia). An allied remedy, actæa spicata, has a special influence over the wrists and small joints of hands and feet. In recent cases where osteoarthritis is associated with disease of the pelvic organs, the actæas have great value. In more chronic cases they are rather palliative than curative. It has a real value in chorea, which again marks its relation to rheumatism. Trembling and jerking of muscles are prominent symptoms, noteworthy if worse from emotion, and worse in any muscles under pressure, *e.g.* from lying on one side or the other.

In the digestive sphere there are symptoms of

dyspepsia : coated tongue, sticky saliva, unpleasant taste in the mouth. Sinking sensations at the epigastrium are marked. On the whole, the symptoms referable to the alimentary tract are rather of secondary value.

There is a very characteristic cough, not resulting from any obvious catarrh, but suggestive rather of reflex irritability. It is a dry, teasing cough, worse at night and worse at every attempt to speak. This has proved a valuable indication for the use of the remedy, naturally more valuable when accompanied by other characteristic symptoms.

In the sphere covered by the generative organs, the symptoms of actæa become numerous and important, though much more so for the female than the male sex. Pains are sharp and definite : inframammary pain, and also in the ovarian (left side chiefly) and uterine regions, with tenderness on pressure. Painful and *irregular* menstruation, more often scanty than excessive : leucorrhœa with a sense of weight and pressure in the pelvis are marked. The dysmenorrhœal pains are apt to be like those of labour, at their worst *during* the flow ; the actual pains of childbirth are often rendered more regular and effective by actæa. It seems also to have some power in overcoming rigidity of the os uteri in labour. Naturally the claims for prescription of actæa are enhanced by the presence of others of its symptoms, especially in the mental sphere. Puerperal mental disturbances, even puerperal manias, have been benefited by it.

Actæa is a very useful remedy at the menopause in restless, irritable patients, gloomy but often voluble about their ailments ; flushes frequently suffuse the otherwise pale face, with dark rings under the eyes. Twitchings and cramps disturb the sleep, and palpitation and quick pulse may be present, as also increased blood pressure, especially in thin single women of "rheumatic" tendencies.

Finally, the symptom of insomnia is prominent in the actæa pathogenesis, and given anything like a

characteristic actæa temperament, the use of the drug will be found satisfactory for this condition.

Macrotin in the lower potencies has been praised for lumbago.

ANTIMONIUM TARTARICUM.

Tartar Emetic. Triturations or Solutions and Potencies from both.

Antimonium crudum, (the sulphide of antimony), and antimonium arsenicosum, the arseniate, are used as well as antimonium tartaricum; but the last is the most important member of the antimony group of compounds. It is well known to the dominant school of medicine, and some of its uses therein have a distinct flavour of homœopathy. But on the whole the non-homœopathist tends to use it less in these days, while the followers of Hahnemann, holding to their guiding principle, find its precise application relatively easy, and the results of it as satisfactory as ever.

Locally, tartar emetic irritates the skin, causing a papular eruption and later the development of vesicles and pustules not very unlike those of small-pox. The openings of the skin glands and hair follicles are the points where the pustules begin. Injected hypodermically it causes great pain and often local suppuration and sloughing, so that this mode of administration is undesirable. The skin effects are most easily brought out by local application, but appear from homœopathic and other experience (see both Schulz and Lewin) to follow occasionally the internal use of the remedy. Also the eruption sometimes appears not only where the local application has been made, but on areas far removed, suggesting a more than local influence. Regarding these skin effects, therefore, as a specific

skin reaction, and noting the characters of the eruption, homœopathists use ant. tart. for cases of small-pox, when other symptoms correspond, and apparently with much success. As will be seen below, the characteristic early backache of variola finds a parallel in the pathogenesis of ant. tart.

As its name suggests, the effects of tartar emetic show readily in the gastro-intestinal tract. Small doses cause little but slight perspiration to healthy individuals, but larger doses cause great nausea and violent vomiting, with profound depression, salivation and sweating. The pulse is quickened. The later vomitings contain much slimy mucus and even blood. With the vomiting appears a profuse watery diarrhœa, and great muscular weakness sets in, and often symptoms of general collapse. The skin becomes cold and covered with sweat, the face cyanosed, the voice weak, the respiration and temperature depressed, and in fatal cases life ends in coma. Albuminuria is a fairly frequent symptom of poisoning. The vomiting and diarrhœa appear to be largely due to the local irritant action, for though they will follow hypodermic injection, the drug is largely excreted into stomach and bowel and produces its local effect in this way. In chronic poisoning ulceration of the small intestine is said to appear and Peyer's patches to be specially affected. Blood pressure falls after poisonous doses; œdema of the lungs and congestion are common, and in animal experiments catarrhal inflammation of the bronchi and pneumonia have been observed. Certain secretions such as sweat, saliva, and that of the respiratory mucous glands are stimulated. After chronic poisoning there is evidence of fatty degeneration of certain organs (*e.g.* liver), as with arsenic. Small doses stimulate the kidneys, large doses cause nephritis. The drug appears to have a specific power of destroying trypanosomes of the blood, even in dilutions of 1 in 500,000. It has therefore been employed in sleeping sickness and in syphilis, but the main difficulty hitherto in using it for such diseases

is to find a suitable preparation, for the ordinary compounds are most intensely irritating.

From these effects of poisonings and experiments it will be clear that antimony is a profoundly-acting drug, with special points of attack upon the gastro-intestinal tract, the respiratory system, the skin, and the kidneys. Homœopathic experiment and experience make clear the detailed indications for its successful use.

Antim. tart. is one of the most valued of remedies in homœopathic practice for pneumonia. It is especially to the broncho-pneumonia of children and of the aged that it corresponds, and it is rare for such cases not to suggest the use of it. There is much catarrh with accumulation of secretion difficult to bring away : cough is paroxysmal (whooping cough needs the drug sometimes), there are attacks of suffocative dyspnœa and cyanosis. Pains in the chest are common. If one side is predominantly affected, the patient for choice lies upon the other. The pulse is hard and quick. Great drowsiness, nausea and vomiting are often noticed and possibly diarrhœa.

It is interesting to note that Trousseau, who valued the drug in some acute chest affections, observed that it acted best when there were gastro-enteric symptoms, *i.e.*, when from a homœopathic point of view it was better indicated by the whole symptom-picture.

In the genito-urinary system, homœopathy does not make much use of the power of the drug to produce nephritis. Unless kidney symptoms are accompanied by others elsewhere that suggest ant. tart., they seldom by themselves lead to a choice of it. Nor does it much influence the sexual organs. It seems to have some power over papillomata and has had clinical success in gonorrhœal warts.

The alimentary canal is a seat of much more definite symptoms. There is a general aversion from food, and the tongue is moist and heavily coated white. Nausea is a marked symptom, as marked as with ipecac., but less persistent, and with this

difference also, that after vomiting it is temporarily relieved. There is a copious flow of saliva. Pain in the abdomen appears, but more discomfort and uneasiness, and the motions are loose, frequent, slimy, generally yellow or brown, and occasionally contain blood. Summer diarrhoea, when vomiting is a marked symptom, with collapse and cold sweating, yields to this remedy. The presence of gastro-enteric symptoms in pneumonia or small-pox is a strong additional indication for ant. tart.

The skin suffers from obstinate itching, and a pustular generalised eruption is characteristic and gives a local indication for the use of the drug in small-pox.

Another indication is found in the very severe backache, affecting the lower part of the spine and corresponding to the well-known early symptom of variola. But similar aching from other causes can be relieved by ant. tart. if movement causes nausea and sweating. Joint pains appear in the provings, and when other symptoms of the drug are present it may be useful, but the backache is the most prominent symptom affecting the joint and muscular system.

In the provings appear a variety of febrile symptoms. The fever of ant. tart. has certain characteristics. Shiverings and sense of cold are marked: sensations of heat are violent, but do not last long at a time. The pulse is rapid and weak and perspiration profuse and exhausting. Antim. crud. (sulphide of antimony) suits patients who dislike heat and prefer coolness. The subjects favourable to ant. tart. find that on the whole heat aggravates their symptoms also: but so, too, in some respects (*e.g.* joint symptoms) do cold and damp, wherefore the drug may be said to be less noticeable for reactions to temperature than many.

Tartar emetic, therefore, is a most valuable remedy for several acute diseases, broncho-pneumonia, gastro-enteritis, small-pox; but in all these conditions there are a number of other drugs of possible power

to help, and distinguishing features are needed for the choice of the most suitable one. As far as ant. tart. is concerned, the mental and temperamental symptoms which characterise those likely to find relief from its use are distinct and well marked, and the homœopathist feels reasonably secure in prescribing the drug when they are present. The mental condition which suggests ant. tart. is one of intense crossness and peevishness, a real ill-humour, persistent and irreconcilable. If a child, the patient will whine and complain and resent the slightest touch, refuse to move, refuse to obey any command; show, in fine, a "fractiousness" which is a torment to nurse and relations, but a clear guide to the physician. Older patients will have more control, but the peevish ill-temper will be noticeable enough. Both chamomilla and pulsatilla are frequently needed in gastric complaints of children: of these pulsatilla suits a tearful state, desiring consolation and company but without any ill-temper—a mood of "softness," in fact; while although chamomilla is fitted for very ill-tempered children, there is with these an underlying wish for sympathy and help, however ungraciously overtures may be received. When antimony (in any preparation) is to be thought of, the ill-humour is without any desire for consolation, and attempts to give it worsen the temper: the child's chief desire is "to be let alone." If characteristic gastro-enteric (or respiratory) symptoms have been aggravated by anger or vexation, that fact makes it more probable that ant. tart. will prove to be the remedy desired.

APIS.

Apis mellifica—the poison of the honey bee: tinctures made with alcohol.

The effects of bee-stings on sensitive persons are often general as well as local; and these symptoms, supplemented by deliberate provings of the tincture,

and checked and extended by clinical experience, make up a characteristic drug-picture of a remedy valuable in a variety of diseases, principally, though not exclusively, acute and sub-acute affections. In many places there is a popular belief that bee-stings relieve or cure rheumatism, and instances of the apparent remedial effect of them even in chronic long-standing cases have been recorded by physicians. Homœopathic experience confirms the remedial relationship of apis to certain joint disorders and justifies the popular belief, while defining the cases likely to respond to the drug.

Locally bee-stings usually give rise to considerable œdema, and the general effects of the poison include probably some lowering of blood coagulability, for a tendency to urticaria and to serous effusions develops. Consequently, recent serous effusions, urticaria, and local œdemas are symptoms that suggest apis to the homœopathist. Recent pleural effusions (non-purulent) and synovial effusions come into its sphere of action, and the œdemas of acute nephritis, whenever the symptom-complex of apis can be made out in other respects. Particularly it is valuable in a number of local inflammations of skin, throat or conjunctiva, if the quality of œdema is marked in the appearance. Thus erysipelas, pharyngitis or tonsillitis may respond to it.

The œdema that calls for apis, however, is seldom, if ever, painless. The characteristics of the pain are that it is severe, burning and darting, and if the adjective stinging be added, that is at once a good descriptive term, and one easily remembered in relation to bee-poison. Wherever the local inflammation may be, if it is accompanied with a good deal of swelling and with burning, stinging pain, apis is likely to relieve it. The burning, unlike that which characterises arsenicum, is relieved by cold and made worse by heat. As arsenicum has œdema in its pathogenesis as a marked feature, the distinction may be of importance. Apis, like the other great poisons of the animal kingdom—the serpent poisons

—is a remedy most suited to those who bear heat badly, who need cool, fresh air ; while the patients who respond to arsenic are usually chilly, seeking warmth. There is also in the apis symptom-complex some measure of that aggravation after sleep that characterises so strongly lachesis and its allies. Thus, symptoms are often worse in the early morning when apis is indicated, and also the patients are apt to wake several times in the night to new accesses of pain.

With the characteristic pains goes a marked general sensitiveness of the body-surface, an aversion from touch or pressure (except for headache, which may be relieved by pressure), a dislike of any constriction, all of which symptoms again recall similar ones produced by lachesis. But while the sensitiveness of lachesis is almost entirely a nervous irritability, that of apis is accompanied and enhanced by a general sensation of soreness and a weary, bruised feeling that often produces an effect as of great bodily fatigue. The final result of these sensations is a condition of debility that may go on to actual paresis, more functional, however, than organic, although, as will be seen later, the poison can cause muscle spasm, and the end-result of that undue stimulation would be depression. With all this discomfort, however, there is a marked restlessness, even fidgetiness.

Restlessness, again, recalls the effect of arsenic, but with this drug it is rather a mental symptom ; with apis, more the result of the bodily suffering and the attempt to find ease by change of position. So that as a symptom it is really more closely allied to the relief from movement of rhus, to which drug apis has points of resemblance. However, the apis pains are not markedly aided by the movement : the involuntary search for relief in restlessness is not successful.*

There is evidence of effect of the bee-poison on the

* “ quella inferma

Che non può trovar posa in sulle piume
Ma con dar Volta suo dolore scherma.”

nerve centres, for trembling, twitching, and jerking of muscle groups are prominent symptoms in the complex. These spasms may be followed by stiffness (*e.g.* of the jaw or the tongue). These motor nerve symptoms (as well as the pains) show a preference for the right side of the body (opposite to that of lachesis). Pains in the cardiac region, of a violent character, with palpitation and a feeble pulse, suggest similarities to the effects of the serpent poisons again, especially those of *naja* and *lachesis*.

Apis has been used on symptomatic grounds, and with considerable success, in meningitis and hydrocephalus. Its power to cause serous effusions may play a part in the remedial action, but the general symptoms of the drug are also often in evidence in such cases. It often competes here for choice with *hellebore*.

In the respiratory sphere, besides being indicated frequently in pleurisy, with non-purulent effusion, the pathogenesis contains the symptom of a violent dry spasmodic cough, with great soreness and sensitiveness of the larynx. The cough is uncontrollable and may be very persistent. Dyspnoea of an asthmatic character is also a symptom; and when asthma attacks are recent, and accompanied by little bronchitis but much spasmodic cough, and especially by urticaria, *apis* should be considered.

Regarding the alimentary canal, the pharynx is very sensitive to the action of *apis*, and tonsillitis with oedema (even diphtheria, sometimes) calls for it. Relief from cold (*e.g.* sucking ice) is an additional indication, and much pain is usual. The tongue may be inflamed and swollen and stiff; there is little or no thirst as a rule. Beyond general abdominal sensitiveness and distension, the stomach and bowels present few characteristic symptoms, but a copious, bilious diarrhoea, at its worst in the morning, will yield to *apis* (especially in children) in febrile affections. For instance, measles, scarlet fever, chicken pox, sometimes show a tendency to oedema in local inflammations (throat or conjunctiva), and

the diarrhœa just described may then prove the clinching symptom for the successful use of apis. The anus characteristically is sore and raw, and hæmorrhoids are very painful, swollen, and relieved by cold applications.

In the genito-urinary sphere, the drug is indicated for some acute inflammations of the urethra, with swelling and difficulty in urinating. Urine is scanty or even suppressed (thirst is characteristically absent), but when it begins to be secreted, comes profusely. Acute nephritis with albuminuria and casts may be met by apis if recent and accompanied by much œdema (*e.g.* scarlatinal nephritis), but, as usual, if the drug is required there should be a good deal of pain and discomfort. In the male there is usually increase of sexual desire; but apart from local inflammations with marked œdema, when apis is a valuable, if temporary, remedy, there is little call for it in diseases of the male genital organs. In the female, its effect is more marked, apart from local inflammations. Dysmenorrhœa and recent affections of ovaries and tubes (especially right-sided), when pains are severe and stinging, are often helped by apis. In the days before surgery provided a short cut to relief for more chronic ovarian disorders, apis was highly valued, and if operation for any reason is undesirable, may well be considered.

The power over the joints is a general one on synovial membranes. Homœopathists find it most useful when pains are sharp and stinging, sensitiveness marked, effusion considerable, and when there is marked restlessness and little or no relief to pain from applied heat.

Urticaria is the prominent affection of the skin that suggests apis. Itching is intolerable and swelling considerable.

The patients who need apis are generally drowsy but sleep badly, being waked by pain or by anxious dreams. Children often awake screaming when suffering from acute affections that otherwise suggest the use of this drug.

The mental condition is of less value as a guide to apis than it is for many drugs, but there is generally an anxious, tearful restlessness of demeanour, and in older patients impairment of memory and absent-mindedness. In women with pelvic troubles calling for apis there is generally an unbalanced, hysterical condition.

The action of the drug develops much more slowly than does that of aconite or belladonna, so that care must be taken, if it seems well indicated, not to abandon its use too early. The effect of aconite in acute conditions will often be seen in a few minutes, but apis often requires an hour or more. All potencies are praised.

ARSENICUM ALBUM.

The White Oxide of Arsenic, As²O³. Solution and Trituration.

The sinister and deserved reputation of *Arsenic* as a deadly poison changes into a fame correspondingly great as a beneficent agent in many cases of disease, when the generalisation of homœopathy is accepted and made the basis of practice. Beginning with the criminal uses of it in the sixteenth and seventeenth centuries, it passed into therapeutics (though arsenical compounds in medicine were not unknown very much earlier), and to-day orthodox medicine regards it as a valuable “alterative,” while it is an essential ingredient of compounds like atoxyl and salvarsan designed specifically to exterminate certain parasites. The homœopathist notes with interest how frequently its “alterative” action (*e.g.* in certain skin diseases) corresponds more or less closely to Hahnemann’s doctrine, and finds much to discuss in the problem of the “great sterilisation” of salvarsan.

Knowledge of the effects of large doses of arsenic is considerable, derived not only from cases of crimi-

nal poisoning, but also from many accidental poisonings. Arsenical dyes, arsenical preservative solutions and contaminations from impure sulphuric acid (such as led to the poisoning epidemic of 1900, when the glucose used for cheap beer carried arsenic with it from the sulphuric acid employed in its manufacture), have been responsible for chronic body effects that are often difficult to diagnose, but once realised, are invaluable for the homœopathist. There are few drugs whose "morbid anatomy" is better known, and those who prefer to find a ground for their prescriptions in definitely damaged tissues naturally turn often to arsenic. The presence of the poison is easily recognised even long after death, and this fact has led to a great diminution of the criminal use of it.

ACUTE POISONING by arsenic speedily produces constriction of the throat, gastric pain rapidly becoming violent and accompanied by vomiting and watery diarrhoea, the latter soon taking on the character of the typical "rice-water" stools of cholera, shreds of mucous membrane disintegrating in a watery fluid. Stools and (more often) vomit may contain blood. The urine is diminished or even suppressed: muscular cramps, giddiness and headache accompany the other symptoms, and collapse ensues, passing into coma and death, preceded sometimes by convulsions. These are the symptoms of a large dose, and already the homœopathist would be led to think of arsenic for Asiatic cholera and certain severe cases of enteric or other bowel affections. The remedy has often justified the homœopathic doctrine in such cases. Sometimes there are few symptoms but collapse and coma, and this again is a phenomenon not unknown in cholera.

CHRONIC POISONING may follow a single large but not fatal dose, but more often is seen when arsenic is gradually absorbed, *e.g.* from wall-paper (dust inhalation) or beer or wine. At first the patient complains of general weakness, loss of appetite, nausea-vomiting and gastric discomfort: *at this stage con,*

stipation is more common than diarrhœa. Presently, the respiratory mucous membranes become affected: the conjunctiva inflames, and the surface of the nose, pharynx and larynx, so that coryza, sneezing, hoarseness and cough appear. Jaundice is occasionally seen. The skin is notably influenced: the eruptions may be vesicular, papular or erythematous, but nearly always there is considerable formation of epidermal scales: pigmentation is usual, but is due neither to normal pigment nor to an arsenical compound, but to some other organic substance. The hair and nails fall off. Herpes is not uncommon, and is to be associated with the other nerve phenomena characteristic of prolonged poisoning. These are persistent headache, neuralgic pains, and finally peripheral neuritis with all its sensory and motor symptoms. First the nerves are irritated, and formication, pain and variations in sensitiveness to heat and cold appear; while later, sensation is dulled or lost and the gait may become ataxic thereby. The motor nerves being irritated, cause cramps and spasms and later there is paralysis. If the spinal centres are affected they are only influenced secondarily: the primary and important lesions are those of the peripheral nerves. The affected muscles degenerate so that recovery is very slow and sometimes partial. An apathetic, almost demented, mental condition has been observed from severe poisoning, and also epileptic attacks have supervened.

The effects of increasing quantities of arsenic on mucous membranes are not corrosive but resemble those of phosphorus. The cells show cloudy swelling and fatty degeneration, and the tissue is generally congested. Peyer's patches are special sites of arsenical action (cf. use of the drug in enteric). These signs are present in gastric and intestinal mucous membranes, however the poison is absorbed; they are specific, not only local, and the power of the drug to cause irritation and ultimately fatty degeneration of mucous membranes is clear. The increased fluid ("rice-water"

fluid) in the intestine appears to be a result of vascular action. Small doses of arsenic given to dogs increase the gastric secretion, and it is, to say the least, noteworthy when the power of large doses thus to damage and destroy these tissues is so certain, that small doses should rightly have the reputation of encouraging digestion, for although Arndt's generalisation as to stimuli is generally admitted, only homœopathists (and Professor Schulz) consciously use it as a ground for prescription.

The heart is not obviously affected by arsenic, except that in fatal poisoning the muscle degenerates. The blood pressure falls (as arterioles dilate from effects of the drug on the muscle coat), and more blood accumulates in the splanchnic area: this is the ultimate cause of the increased fluid in the bowel. The provings, where the arsenical absorption is very gradual show, as will be seen, a good many subjective cardiac symptoms, and the iodide of arsenic has a deserved reputation in some chronic heart cases, but the iodine element without a doubt counts for much in this action.

The tendency to proliferation of the epidermis, with formation of scales, has been already noted. The growth in thickness and cell multiplication may go on to epithelioma. Arsenic has certainly the power to influence the body towards the appearance of malignant disease.

There is some evidence that arsenic diminishes the number of red blood cells, but it is not conclusive. Persons chronically poisoned by arsenic are usually anæmic, however, and seem to be more susceptible to microbic diseases, especially if under-nourished.

It has been asserted that the leucocytes will absorb minute quantities of the red sulphide from the blood stream: this would suggest that arsenic might prove in small doses a stimulant to leucocytic action, and it has been stated that phagocytosis is encouraged by the presence of minute quantities. It would follow that large doses would impede leucocytic action, and thus chronic arsenical poisoning cases might be less

resistant to infections, having in mind the part played in resistance by the white corpuscles. Conversely, therapeutic doses should stimulate resistance, and since it is very doubtful if the action of arsenical preparations in malaria, sleeping sickness, or syphilis is that of a pure parasiticide (see below), the leucocytic stimulation may count for something when favourable results follow its use.* In fermentation of sugar by yeast, the presence of small quantities of arsenic definitely accelerates the process, while that of large quantities retards it. The drug does not encourage the multiplication of the yeast cells : it is a stimulant to a function rather than to tissue building.

As regards general metabolism, small quantities of arsenic (like small quantities of phosphorus, but less intensely) accelerate autolysis : large doses arrest it by destroying the ferment. Fatty degeneration occurs in poisoning, not only in mucous membranes, but in liver and kidney, heart and other muscles, blood vessels and lung alveolar epithelium. If the fatty degeneration of the liver is considerable, pressure on the bile ducts may cause jaundice. Arsenic is excreted largely in the urine, and may irritate and inflame kidney tissue in the process. Homœopathy finds it often useful in nephritis. It is said that under the influence of arsenic quantities of sugar can be assimilated, such as would normally cause glycosuria—but the mechanism by which this effect is produced is obscure.

A tolerance to arsenic can be acquired, and the Styrian arsenic eaters are famous. They believe it improves their powers of respiration. The effect of it on complexion and hair (it is given to horses to improve their coats) is readily explained on Arndt's generalisation (homœopathically), for since large doses of the drug inflame the skin and damage it, and cause hair to degenerate and fall, relatively small doses should stimulate skin and hair nutrition. The

* Enlargement of lymphatic glands has been found in arsenical poisoning cases, and also enlargement of the spleen.

orthodox therapeutic use of arsenic for skin diseases is particular noteworthy by the homœopathist, since it is for psoriasis, chronic eczema, and lichen ruber that it is chiefly recommended, and on the whole these are the diseases it can most readily counterfeit. Homœopathic provings, as will be seen, endorse its use for asthma (when other arsenical symptoms are present), and its presumed effect on leucocytes is recalled by the use of it in lymphoma and leukæmia. Neuralgia and cachexia are among its effects, and it is praised as a remedy for both. In chorea some physicians prize it highly: the lesser degrees of poisoning induce spasm of muscles, but when large doses are given with cessation of symptoms, the effect is more probably on the conduction of nerve impulses. When the case is one that in its whole complex suggests arsenic to the homœopathist, potencies (much too minute in quantity to produce any gross tissue effect) will cure chorea, and their action can only be interpreted as a reversal (homœopathically) of the spasmodic effects of the disease poison by an agent itself capable of producing spasm.

Acute arsenical poisoning should be treated with prompt, copious, and repeated washing out of the stomach. Chronic poisoning will tax the patience and resource of the physician, but sulphur and pulsatilla and phosphorus are often called for by the symptoms.

The general effects of arsenic are made by Professor Schulz the basis for its use in many conditions on his well-known view of drug action which so closely resembles a (somewhat) crude homœopathy. His own provings bring out many of the finer points of arsenic symptomatology familiar to the homœopathist, and he treats with it not only neuralgia, chorea, malaria, asthma, and chronic skin diseases, but also choleraic diarrhœas and cholera (using the arsenite of copper), and a variety of chronic conditions wherein he finds drug symptoms and disease symptoms to correspond.

Before, however, proceeding to homœopathic

provings of arsenic and the therapeutics founded on them, the question of arsenic (especially of salvarsan and allied compounds) as a parasiticide must be briefly referred to. The use of this compound has unquestionably been of great service to sufferers from syphilis, but it is no surprise to the homœopathist that many cases (and especially the severe cases for which salvarsan won its first laurels), should respond to arsenic, for on a purely symptomatological basis arsenic is often called for in this disease. Broadly speaking, arsenic corresponds more frequently for the homœopathist to primary syphilis (and such tertiary symptoms as ulceration), while mercury is more likely to be indicated for the secondary stage (although arsenic may also be needed then), and although most followers of Hahnemann use low potencies of both drugs and continue the administration of them, yet in no case are large enough amounts given to make any parasiticial action credible. In other words, here as virtually always, the homœopathist endeavours to stimulate a body reaction rather than directly to attack a body invader. In this connection it is of interest to recall that the older physicians were well aware of the value of arsenic in syphilis, and Donovan's Solution remains in use as evidence of their knowledge to this day. Therefore, to Ehrlich and his followers the homœopathist is inclined to say: "Arsenic as a remedy for syphilis I value, and your preparation may have a special virtue, but before conceding your claims that it acts as a direct parasiticide I require much more evidence. If you can establish the fact I shall gratefully employ the agent; indeed if I am convinced that its effect is a good one (better than I can otherwise obtain), I will use it thankfully, suspending final judgment as to its mode of operation. But I note that you confess to certain risks in its use, from which at least my smaller doses are free, and your claims for speedy and complete cures are not now made with that confidence that at first filled newspapers with rejoicing optimism,

Gone is the belief in the 'great sterilisation,' and instead we have statements as to parasites becoming resistant to arsenic to the point of invulnerability. Meantime one expert at least maintains that the drug effect is principally indirect, and that commends itself to me on the grounds of much experience with drugs and their actions. If the virtue of arsenic in syphilis is to stimulate a body resistance, as I more than suspect, I doubt if your large dosage (with attendant risks) is needful: at least I add the comment that I frequently find arsenic called for on homœopathic grounds, and suspend my judgment as to its value when not so indicated." Such in brief is the general attitude of homœopathy to the parasiticial action of arsenic, in sleeping sickness and malaria, as well as in syphilis. When indicated by the symptom-complex as a whole, the homœopathist expects it to prove its value without any excessive dosage, and attributes success to the body reactions aroused or encouraged by it. If not indicated homœopathically, he would doubt if mere increase in quantity of it would achieve a cure. Similar doubts attend the parasiticial action of quinine in malaria and emetine in amœbic dysentery, and it is noteworthy that opinion thoroughly orthodox begins to question, as does homœopathy, whether the effect of either drug on its appropriate parasite be the sole or even principal cause of the undoubted success that often attends the use of each.

THE HOMŒOPATHIC USES OF ARSENIC.

The way is now clear to the consideration of the indications for the use of arsenic (*arsenicum album* unless otherwise noted) as a homœopathic remedy.

There are some grounds for thinking that arsenic acts more powerfully on vegetable-eating animals than on flesh-eaters: it is often useful correspondingly for ill-effects of excessive eating of melons, strawberries, etc., and for various disorders when affecting vegetarians. In this respect it is the opposite of

nux vomica. The Styrian arsenic eaters are mainly vegetarians, and they are said to believe that the arsenic which they swallow is the more needed by them because of the absence of meat from their dietary.

Arsenic has several well-marked "general" symptoms, which frequently determine the choice of it. Thus it corresponds to constitutions that are very susceptible to cold and damp, especially to cold. Heat of sun or fire or clothes relieves symptoms of pain and discomfort, except for headache. The headaches of arsenic are relieved by cool air and cold applications, but apart from headache, the patient is shivering from the least exposure, and desires heat. Its symptoms show marked periodicity, recurring every day, every third or fourth day, every week, and so on. There is a weekly headache well known to routine brain workers, that recurs regularly at the end of the week when the tension of routine is relaxed, as though the bill of fatigue were deferred till the time of stress is temporarily over. Such a headache often yields well to arsenic. The time of symptom aggravation in the twenty-four hours is at midnight and after, up to about 3 a.m., a little later than that characteristic of aconite. Pains and fever and delirium are apt to worsen notably then; asthma paroxysms habitually coming between 12 p.m. and 3 a.m. often yield to arsenic. The time of onset of an asthma paroxysm or of any recurrent complaint is of great value as a symptom for the choice of remedy.

In the mental sphere, the patient who needs arsenic is both irritable and despairing: he shows anger, even fury, with hopelessness and misery. Many cachexias of serious disease produce a combination of sadness and irritability, and arsenic reproduces this (as well as the physical symptoms of cachexia) and will aid it, whether the cause be syphilis or tubercle, cancer or malaria, or overdosing with such drugs as quinine or mercury. No reader of the symptoms of chronic arsenical poison-

ing, outlined earlier in this article, can fail to see that arsenic produces a cachexia. The homœopathist concludes, therefore, that it can relieve disease cachexias which show its characteristic symptoms, and is justified by the results of such treatment.

Returning to the mental sphere, the angry melancholy that belongs to arsenic has one pervading characteristic of restlessness. Even if delirium sinks into stupor, fits of restlessness will occur, and generally the patients constantly toss about, shifting their position, and are anxious and filled with the fear of death or of worsening of their symptoms. These features recall aconite, where is also restlessness and fear of death—but arsenic shows none of the tension that goes with aconite. The patient's power of reaction seems poor, his tension lowered rather than raised, and it is seldom that the prescriber hesitates between aconite and arsenic. The restlessness is often accompanied by jerking spasms of groups of muscles, especially when the patient is on the point of falling asleep. When, for instance, such symptoms appear in chorea, arsenic might be given with confidence, and other nervous diseases of an acute or sub-acute type often need it, notably, of course, neuritis and neuralgia. It is less often indicated in chronic nervous diseases of spinal cord and cerebral tissues.

The drug in its general picture corresponds to states so frequently found in the more profound bacterial poisonings, and produces on the healthy a definite state of fever with a daily rhythm or one of longer range. Thus it is a great remedy for enteric (varieties of paratyphoid, too), especially when the usual loose stools are present. Poisonings show its affinity for Peyer's patches. The constipated type of typhoid more often requires bryonia. Influenza ordinarily is too short-lived a disease to need arsenicum, and seldom requires more than gelsemium or baptisia, but if a case drags on, arsenic symptoms will nearly always appear. Early tuberculosis often calls for it, when acute or sub-acute: pneumococcal

affections less often : here phosphorus, the congener of arsenic, is more likely to be indicated. In general it can be briefly stated that any quality of "malignancy" in any acute or sub-acute disease (measles, scarlet fever, diphtheria, enteric, etc.) should always suggest the use of this drug. The drug causes a rise of temperature comparable to that of all these conditions, as well as so many other symptoms apt to go with the fever. Hectic temperatures, if occurring without much formation of pus, often benefit from it. Considerable suppuration (*e.g.* empyemas) seldom show arsenic symptoms : as a rule, when arsenic is wanted, leucocytosis is not marked, even though in general it would be looked for in the disease in question. There may even be leucopenia. In more chronic cases, however (Hodgkin's disease, leukæmias, etc.), arsenic has a value, but these show not reaction leucocytosis, but pathological increases in white cells, and the indications for arsenic are here more general, as also in pernicious anæmia. It is unfortunately true, however, that in all these serious disorders, though arsenic often palliates (considerably when well indicated), it seldom cures. There is some evidence that small doses of the drug encourage phagocytosis, but not that it modifies blood cells (red or white) very profoundly : it affects, in other words, function rather than structure, and, consequently, on pathological grounds is less likely to be of service in grave anæmia. Its provers develop anæmia, but this is of a simple type, and correspondingly arsenic often helps chlorosis materially.

The pains that indicate arsenic, whether definitely neuralgic or the result of gastritis, enteritis or whatever, are severe and unbearable, and notably burning. This burning quality appears in the pains of sulphur and phosphorus also to a high degree, but there is no drug of which "burning" is more characteristic than arsenic. †And the "burning" is relieved by heat, while sulphur patients are notably averse from heat, and though phosphorus subjects are in general "chilly" [€]folk, the stomach pains characteristic of

this drug crave for cold food and drink, and violently resent hot things. The troubles of arsenic, on the other hand, are relieved by heat throughout, with the one exception noted of the headache. Thus, a dyspepsia that is caused or aggravated by ice water or ices will often find its remedy in arsenicum.

Another general feature of arsenicum is the great prostration it causes, often out of proportion to the obvious tissue lesions, and whenever patients are manifestly overwhelmed and exhausted in the struggle with disease, arsenic is a remedy to be considered. The patients are characteristically restless, yet every little exertion fatigues them excessively : the whole sum of vital energy seems diminished. This condition often accompanies one or other of those cases of "malignant" disease, which in themselves by their severity suggest this remedy : so that both an overwhelming attack and a weakening defence call for the use of it. The patients suitable for its prompt action are often the rather fat and plethoric, who are notoriously bad subjects for epidemic diseases, and œdema of tissues and puffiness are marked arsenicum symptoms, whether from actual nephritis or heart failure. Conditions that follow losses of blood often need it.

Prolonged irritation from arsenic undoubtedly can cause epithelioma, and for the homœopathist it is an important cancer remedy. Whatever shall prove to be the mechanism of body resistance to cancer, unquestionably that mechanism is *sometimes* effective, since "spontaneous" recoveries from undoubted cancer multiply on investigation, however rare they are. If, therefore, the body can ever defeat this deadly disease, conceivably it can be helped to do so if the defensive mechanism can be encouraged, and since massive doses of arsenic tend to impede the mechanism, the homœopathist would expect small doses to support and stimulate it. Here, as always in medicine, there can be no routine treatment, and the remedy indicated by the whole symptom-complex should be given, but cancer cases usually lack even

a fair number of distinguishing symptoms, leaving the drug choice to be made on less assured and more empirical grounds. For the present it is very doubtful (in spite of many results of promise for the future) if the physician is justified in refusing surgical aid whenever the surgeon considers the chances of interference good. But the field of the physician, though thereby restricted, remains important. There are, unfortunately, inoperable cases, recurrences and other : these should be attacked, and though clearly they will be more difficult to deal with than the early cases entrusted to the surgeon, yet helpful results, if obtained, will be the more significant. Secondly, surgical removal of a growth is not in itself a cure for the cause (problematical at present) of the growth : that cause, persisting, makes a tendency to recurrence which surgery can minimize perhaps but never eradicate. The physician, from the moment of operation, or before, should attempt to deal with this cause on the basis of the homœopathic generalisation. Such considerations have led Dr. George Burford to advocate the routine administration of arsenic for long periods after operation, and his results as to non-recurrence are encouraging. Probably indications should be sought for a closer adaptation of drug to patient. High as are the claims of arsenic, there are others to be considered, notably thuja and carbon, and a group of vegetable remedies such as symphytum, ruta, ornithogalum, lobelia erinus, etc. These last are mainly prescribed in occasional "unit" doses of tincture by the method of the late Dr. Cooper, who did most to find and fix their places in the *Materia Medica*, and have apparently tissue relations of some significance. Dr. Burford advises the cacodylate of soda and gives appreciable doses persistently. If arsenic symptoms (general or local) were clear, potencies would almost certainly be preferable.

Turning now to more local symptoms of arsenicum, it must be noted that mucous membranes, peripheral nerves, and skin are principally attacked. The

effects on mucous membranes are similar, whether they are respiratory, gastro-intestinal, or genito-urinary. The tissue is violently irritated and ultimately inflamed and ulcerated: swelling and free secretion of pus are generally lacking: the surface is dry, sore, and burning, the discharge watery and irritating. This corresponds to the diminished or hindered leucocytosis of large doses of arsenic. Thus the coryza is typically watery, burning and corrosive, but seldom abundant: herpes is often present, and marked irritation of the skin over which the discharge flows: cool air aggravates the condition, and warmth improves it. The conjunctiva is affected similarly to the nasal mucous membrane, and the pharynx shows the same group of symptoms: warm drinks relieve the sore throat. Hay fever is often helped by arsenic when such symptoms as these predominate, and asthma finds a potent remedy in the drug when the secretion is scanty, the prostration considerable, the time of the paroxysm from midnight to 3 a.m., and the condition relieved by heat and aggravated by cold. There are sensations of burning and dryness in the larynx under arsenic, with hoarseness and a tickling suffocating cough, with very little expectoration, worse after midnight and in the open air. Trachea and bronchi are similarly affected, and the symptoms resemble those just noted. The cough of early tubercle may suggest (and be relieved by) arsenic, but in general, affections of the lungs and pleura require other remedies. The iodide of arsenic is a great aid in the later stages of both pleurisy, pneumonia and tuberculosis, but it is likely, as previously noted, that the iodine element deserves much of the credit for this value. On the other hand, emphysematous conditions frequently have a symptom-complex that calls for arsenic, and the arseniate of antimony is probably the best single drug for this group of diseases.

The alimentary canal is perhaps the most important of all the many sites of action of arsenicum. The tongue is dry and cracked, seldom heavily coated,

often red and angry looking and ulcerated. Tongue and throat burn, saliva is tough and scanty : appetite is lost but thirst is excessive. Very characteristic is a constant thirst for small quantities preferably of hot fluids. "Little and often" is the thirst that calls for arsenic, "large quantities seldom" that which suggests bryonia. Nausea, going on to regurgitation and vomiting, appears early, with burning gastric pains and excessive tenderness. Heat relieves for a while. The vomit is acrid and burning and may contain blood, but it is not as a rule copious (unlike that of *veratrum a.*). The stomach is inflamed and ulcerated, and arsenic is one of the remedies for gastritis and gastric ulcer. Colic and burning pains prevail over the abdomen, with some flatulence, and the stools are nearly always frequent and loose, passed with violent pain and tenesmus : they are at first yellow or greenish, but become more and more watery. They are as a rule small but frequent. Blood may be evident, and mucus and shreds of tissue. Cholera, enteric, dysentery, colitis, all of these are conditions that may need arsenicum. Cramps are a feature of the drug, and confirm the choice in many cases. In cholera and choleraic disorders, when they are very severe indeed, the arsenite of copper (cf. Professor Schulz) is particularly valuable. Finally, as regards the alimentary canal, the subjective sensations of provers suggest that the appendix region is a favourable site for the action of the remedy : but the drug should not be chosen without some definite general symptoms of arsenic, and these seldom appear at the beginning of this disease, while now that early operation is the rule (rightly), the grave conditions that might suggest it seldom obtain. Belladonna at the earliest signs and one of the Serpent poisons (*lachesis* or *crotalus*) up to operation, and if necessary afterwards, are usually the most appropriate drugs.

In the genito-urinary sphere, arsenic is called for in syphilis frequently on general grounds, and the inflammations characteristic of the drug, painful

and burning, with scanty acrid discharges, suggest it in various conditions of leucorrhœa and urethritis. The kidney on the other hand is specifically inflamed by arsenic, which therefore becomes a great remedy for certain forms of nephritis and albuminuria.

Acute nephritis (*e.g.* following scarlet fever) more often finds its remedy in cantharis, terebinth or apis, but the sub-acute or early chronic stages are those wherein an arsenic symptom-complex is more likely to be found. It controls chronic interstitial nephritis with some success when the other symptoms correspond. Occasionally in arsenic poisonings the urine has shown the power to reduce Fehling's solution. On general symptoms it is indicated sometimes in diabetes, and in the forms (usually) of bromide of arsenic and arseniate of gold some success has been claimed for it. As with most remedies in this disease, however, the effects are generally disappointing. In diabetes there is a metabolic deficiency; arsenic is as likely, perhaps, as any one remedy to stimulate production to make good that deficiency, and if symptoms agree, should be tried, but too often effective production seems impossible, and then a cure by any drug is out of the question; all that remains is to attempt to adjust the life to the metabolic capacity. The hopeful time for "cure" would be before the defect became great, but to recognise it impending might require good observation of symptoms apt to be dismissed as unimportant.

The effects on the blood have been already discussed. Arsenic produces on the heart subjective symptoms of intolerable palpitation and irritability, and has a real value in this last condition. But inasmuch as prolonged use of it tends to fatty degeneration of heart muscle, it is as a general remedy to encourage and make stable compensation that it is deservedly prized. To this end the iodide is frequently used for long periods in alternation with iodides of barium, lime, potash, and gold, each remedy for a fortnight at a time. So used, these drugs appear to help compensation, and in young

children with hearts crippled early by rheumatic fever, such treatment persisted in with judgment over months and years seems of real and abiding benefit. The iodine element is here of considerable importance.

In the locomotor system the prominent symptoms of arsenic are those due, first to the irritation and then to the paralysis of the peripheral nerves, motor and sensory. Thus neuralgias (sharp, cutting, and especially burning), twitches, cramps and spasms are prominent, also loss of sensation and paralysis. Whenever neuritis can be diagnosed, arsenic becomes of prime importance as a remedy : but here, as always, it acts in very definite proportion to the degree in which the whole symptom-complex calls for it. The red sulphide seems a particularly useful preparation in this disorder. It may be remembered in epilepsy also.

Those who require arsenic are generally poor sleepers at night, because of the usual aggravation of symptoms from midnight onwards. But on the whole, drowsiness is a marked symptom of the drug and shows, when pain remits, by day or by night. Sleep is unrefreshing and dreams terrifying ; but it is interesting, since sleeping sickness finds a remedy of some power in arsenic, that the drug should show in its pathogenesis a definite drowsiness, although probably the homœopathist would find it even better indicated in many cases by the general symptoms that underlie the grave nature of that severe affection.

Finally, the skin is a site where the action of arsenic is marked and persistent. Most often the eruptions are scaly (psoriasis, etc.), but urticaria, herpes, ulcerations (characteristically sluggish, with burning pain and scanty acrid secretion), papules and pustules, all these have appeared under the use of it, and for all it may be indicated. Falling of the hair occurs in the pathogenesis and can be helped by the drug. Sweating (worst at midnight and after) is heavy as a rule when arsenic is required.

In the course of this discussion allusion has been made to various preparations of arsenic. Arsenious acid, arsenicum album, transcends by far in importance every other ; of the remainder, the iodide has great value in chronic lung and heart conditions. The places of sulphide and salts of gold and antimony and cacodylate of soda have been indicated. All potencies of arsenic, high and low, are prized. The iodide is usually given in low potency, and in gastritis, enteric, and nephritis, perhaps, the preference is for low and medium potencies. Material doses of the cacodylate are given for cancer. In nerve and skin disorders, the most success seems to attend higher potencies, but there is no firm general rule. Without a doubt the personal factor in the patient counts for much. The most that can be said with confidence is that if well indicated a failure of the first potency used should lead to the trial of another, not to the abandonment of the drug.

BAPTISIA.

Baptisia Tinctoria. Tincture of fresh root and its bark.

Baptisia is one of the important remedies introduced into the Homœopathic Materia Medica after the death of Hahnemann. It very rapidly came into use, because the indications for it are clear and because, as they generally occur in acute or sub-acute diseases, its value can be speedily tested and thereby established.

Baptisia corresponds to febrile complaints of a definite type, the fever that indicates either a slower or less effective reaction to infection or a more poisonous invasion than is the case, for instance, with the fever that calls for aconite. Its analogies are rather with bryonia, arsenicum or gelsemium,

and, indeed, either of the first two may be needed to complete the favourable reaction which baptisia may initiate. When baptisia is indicated the patient from the first is obviously more or less overwhelmed by the invader: there is a great mental confusion, it may be amounting to stupor or suggesting intoxication. Concentration is very difficult, the mind wanders. A curious mental symptom is very characteristic of the drug, and in some degree is quite frequently encountered in practice if the physician is alert to notice it. It is a sense of a divided personality, expressed in a variety of ways: sometimes the patient thinks in delirium that his body is double or scattered in some way with the pieces retaining separate consciousness: or there will be a feeling of two contending wills. Naturally these illusions and sensations are heightened by the rising temperature and may go on into actual delirium. This is usually rather stuporous: the patient can be roused and will answer questions often vaguely or in such a way as to indicate the characteristic "divided personality," and then sink again into sleep. Yet there are indications through the heavy drowsy condition of considerable mental restlessness. It happens that R. L. Stevenson has left on record an account of a personal experience which gives a masterly description of phenomena, analogies of which are not seldom met with, though the sufferers from them have not the power either of analysis or of description to relate them clearly. The experience was during a bout of fever the result of an exacerbation of Stevenson's old enemy, tuberculosis. This fact makes the symptom the more significant, for baptisia is frequently of the greatest service in just such emergencies.* Stevenson relates that every day as his temperature rose he became aware of a conception arising in his mind that his sufferings were caused by the failure to join the ends of a certain

* There is no reason to credit it with much power to combat, or help the body to combat, tubercle in its chronic forms, but to relieve the fever accompanying symptoms of acute and sub-acute exacerbations, there are few remedies more often indicated or more effectual.

piece of string. If the ends were joined (so his self of fever averred), the whole of his troubles would end. Simultaneously, his normal "non-febrile" self knew that this was an absurd delusion, and struggled to hold back the expression of absurdity. But not finally with success, for on at least one occasion he puzzled and distressed his wife by angrily asking in the person of his "febrile self" why she did not join the ends of the string and terminate the suffering. This is an admirable instance of a condition suggesting baptisia. Recent studies of personality have rendered familiar (even to the popular press) the conception of it as no longer one and indivisible, but as a compound of subliminal and supraliminal selves with the liability of the invasion of the supraliminal "normal" consciousness by "uprushes" (in Myers' phrase) from the subliminal. These "uprushes" are coherent and beneficent in the inspirations of genius, incoherent, if not harmful, in delirium and madness. If, then, this conception, well fortified by many facts, corresponds to reality in the mental sphere, the brain, as the organ of mind, has presumably a condition or a structure which represents the "threshold" dividing subliminal from supraliminal, and now permitting, now inhibiting, uprushes. It is as upon this structure, or as influencing this condition, that baptisia may be held to act: but only in the way in which the general circumstances of fever act upon it. The delusions and illusions of insanity are not often helped by baptisia, it is when the delirium of fever takes this particular form that the drug is so well indicated. When the "threshold" wears thin, as it sometimes does, as a result of overwork or mental stress, without any approach to actual insanity, the drug whose indications oftenest come to the surface is *anacardium orientale*. It also seems to act on this region or condition that constitutes the "threshold," but not in the "febrile" way of baptisia.

Side by side with the mental state of baptisia, there are to be noted a variety of subjective and

objective symptoms. Objectively the eyes are "bleared," the eyelids heavy, the countenance vacant, almost besotted. Subjectively, the head feels large and numb: there is a bruised, aching soreness of head, especially in the occiput, with drawing sensations in the muscles at the nape of the neck. The light tries the eyes, the lids may be even partly paralysed, the eyeballs are sore. The limbs ache, the back aches: numbness and soreness appear here also. The feet feel heavy and difficult to move, but it is a functional not an organic paresis. The pharynx is often inflamed and ulcerated, and the oesophagus feels contracted so that swallowing is difficult, but the throat is as a rule less painful than its physical appearances would suggest. There is little or no coryza.

The tongue is swollen, dry, parched, cracked, or ulcerated, with a brown centre coat and a good deal of thirst, but no appetite. It feels numb. Nausea, retching, and vomiting occur early, with gastric and general abdominal pain and soreness of abdominal muscles. Empty sinking sensations are frequent. The stools are frequent, loose and foetid. All discharges are apt to be foetid, when baptisia is indicated, stools, urine, sweat, and the breath is often foul from the ulcerated mouth and throat.

Symptoms are worse on waking (as with the serpent poisons, which suit the profounder septic cases), worse on movement, worse from open air and cold. Numbness, soreness, and drowsiness recur over and over again in patients that need baptisia.

When this very well defined symptom-complex is reviewed it will be no matter for surprise that baptisia has won such laurels in influenza and in enteric. It may be indicated also now and then in dysentery or colitis, or ill-defined intestinal conditions, and it has been highly praised in some epidemics of small-pox when many patients presented symptoms resembling the type of fever described. Its value in acute tuberculosis is considerable, and from time to time other febrile disorders may present

a case that calls for it, but influenza and the varieties of typhoid are the conditions wherein it leaps to the mind of the homœopathic physician. Not that it is to be used as a routine remedy: its indications are clear, and unless they are present it is not likely to avail, but they are shown in these diseases with great frequency. If influenza exhibits much coryza or acute pain, gelsemium has claims, but the ordinary attack, with its weary aching and prostration, especially if gastric symptoms supervene, yields to baptisia with great rapidity, and leaves much less mental weariness behind than when the drug has not been used.

The case for the use of baptisia in typhoid is founded, for any homœopathic observer, on the symptoms as detailed above. It is particularly valuable at the beginning of the disease; even before the diagnosis is certain the indications often appear. Baptisia given then aborts a certain number of threatening cases, such as our predecessors used to call "gastric fever" or "low fever." It cannot confidently be claimed that all or even some of these would if untreated have proved to be typhoid, but a fact of great significance has recently been reported from America. Dr. R. Mellon,* working with young students, has shown that baptisia possesses the power of producing in the blood of healthy individuals an agglutinin which will agglutinate typhoid (Eberth) bacilli. Considerable doses are required to produce the phenomenon, but Dr. Mellon's experiments were conclusive as to its reality and definiteness. It was no mere shadow of a reaction that was produced, but one as clear and well marked as would more than suffice for a confident Widal reaction and diagnosis. From this experiment emerges the significant result that a drug which on grounds of general symptomatology is indicated homœopathically for many cases of enteric, is found to possess the power of producing an anti-body which can act as a specific resistance to the bacillus of enteric. The laboratory finding

* *Medical Century*, 1914.

endorses the claim of the prescription from general likeness of symptoms between drug and disease.

One or two points suggest themselves for comment. First, although the agglutination reaction begins when regular doses of the $2x$ or even of the $3x$ are taken, it does not become unmistakable until the $1x$ and tincture are used and in large quantities. Yet cases of disease seem to respond favourably to drop doses of tincture or of potencies such as $3x$ or higher. But it must be remembered that the production of typhoid agglutinin is not normally part of the body's work, and it may well be that a massive stimulus is required to start the process in a healthy body, whereas if the process is already begun as a result of infection a much smaller stimulus may encourage it suitably. In the provers persistent dosing with the drug ended in a cessation of agglutinin production, that is to say, the power to make it was exhausted by over-stimulation. This is a result only to be expected, a simple illustration of Arndt's generalization as to stimuli, but suggests that in a case of disease the applied stimulus should not be too eagerly pressed. In practice, baptisia produces favourable results in potencies.

It might be deduced from this apparently specific reaction that all enteric cases should have baptisia as a routine treatment. But the homœopathist, while agreeing that such a procedure would probably be generally useful, should still seek for a symptomatological resemblance between the drug and the given case of disease before giving baptisia with full confidence. For the problem of recovery from an infective disease is not always simply and solely a matter of resistance to a given germ. The resistance may be effective enough and yet life, or at least health, be threatened through existing organic weakness and the temporary effect on it of disease. The point has been discussed in the introductory chapters : it is enough here to repeat that if the case requires baptisia, symptoms will appear that call for it, and if such symptoms are absent, it is doubtful wisdom

to give the drug on its laboratory virtue alone. If given when not indicated it may conceivably check the resistance process, which was going forward without it, and meantime, for lack of another remedy indicated by the symptoms, some serious damage elsewhere may occur.

Rhus toxicodendron presents a good many symptoms similar to those that call for *baptisia* in enteric. It is desirable to test this drug also as to its agglutinating power. Other remedies that resemble it in much of its symptomatology are *arnica*, *gelsemium*, *bryonia*, *echinacea*, *lachesis* and nitric and muriatic acid.

BELLADONNA.

Atropa Belladonna—*Deadly Nightshade*. Tincture of whole plant when beginning to flower.

From belladonna are derived the closely-allied alkaloids, atropine, hyoscyamine, and hyoscyne or scopolamine. These are also found in the drugs *hyoscyamus* and *stramonium*. It is consequently not wonderful that the three possess many points of resemblance, but the tinctures none the less give rise to symptom-pictures in provers which are by no means identical, and the three drugs have their own spheres of action. None of the alkaloids have been effectively proved (though some data exist for the use of atropine), wherefore the homœopathic physician relies on the well-tested tincture of belladonna, valuing, as usual, precision of indication beyond possible concentration of power. As, however, the alkaloids are largely preferred by non-homœopathic prescribers, and are held responsible for the main actions of belladonna, it is important briefly to give an outline of their effects, which are at any rate important features of the drug symptom-picture.

Atropine is a stimulant to the central nervous system: that is the cardinal feature of its action.

A dose of $\frac{1}{25}$ grain (which is a large dose) will cause in man the following symptoms: Marked dryness of skin and throat, thirst, difficulty in swallowing: hoarseness: nausea (sometimes vomiting), headache, flushed face (except during vomiting): and giddiness: the pupils dilate, the respiration quickens, and the pulse rises to 100 or over. Redness of the skin is common and inflammation of the conjunctiva. If the drug is pushed still further, the pulse rate runs up exceedingly, restlessness and garrulity lead to confusion of speech and finally to maniacal delirium. In milder degrees, the delirium consists of pleasing illusions and delusions, and of mimetic acting. The patient may carry out in dumb show simple actions like dusting, knitting, playing the piano, &c., accompanied by muttering and smiling. Marked muscular tremor and convulsions appear, and gradually the stage of excitement passes over into one of coma: respiration and pulse become slow and irregular, the face pallid and death from asphyxia ends the story. Some such symptom-complex is seen as the result of accidental deadly nightshade poisoning, which is not so very uncommon. Oliver Madox Brown in the *Dwale Bluth* gives a very excellent description of it as seen by a layman of great power both of observation and description.

The cause of these symptoms is briefly a stimulation followed by a depression of the central nervous system. Unlike strychnine, which affects principally the spinal and medullary centres, atropine stimulates most the brain centres. Not reflex but co-ordinated movements are made more active (speaking, etc.): the reflex sensibility also is heightened, but this is much less marked a feature of the drug action. Yet the part of the brain affected is not so much that which rules the highest psychical function, but chiefly the motor centres. These being stimulated become less and less controllable, and increased action follows until at last depression ensues as the result of over-stimulation.

Most secretions are diminished by atropine, saliva,

gastric and pancreatic juice, mucus, sweat. This is the result of failure of the nerve impulses to these glands, not to an action on the gland cells. It is interesting to note that as far as the salivary gland is concerned, the action of atropine is on one set only of nerve ends (chorda tympani nerve ends, not sympathetic), a specialized action which is a good instance of the fact so well known to the homœopathist that drugs seem to pick and choose among bodily structures, sometimes with extraordinary precision. The secretion of bile is checked also and the conversion of glycogen into sugar. Milk is not affected; it is well known that this secretion is little controlled by the central nervous system.

Unstriated muscle (except in arteries) is affected by atropine. The pupil dilates as the result of unopposed sympathetic nerve action, the ciliary nerve ends being poisoned by the drug: at the same time power of accommodation is paralysed. In the bronchial muscle fibres atropine seems to paralyse the vagus nerve ends, which cause contraction. In stomach and bowel, however, vagus and splanchnic nerves are unimpeded by atropine, but abnormal peristalsis (of non-vagal causation) is controlled by it. Large doses seem to increase peristalsis and may account for the vomiting and occasional purging of poisoned cases. Spleen, uterus, and bladder also continue to respond to normal nerve stimulation after atropine, but are then immune to the poisons which otherwise induce violent contractions. Poisonous doses often produce a desire to micturate without ability to perform the act after a preliminary emptying of the bladder as an early effect of the drug.

In the heart atropine inhibits the action of the vagus. There seems to be some direct action on the heart muscle which causes a preliminary slowing of the pulse, then it quickens, the vagus control being removed.

Sensory nerve terminations are depressed by atropine causing numbness, but the unbroken skin prevents local absorption.

Atropine causes a definite rise of temperature, perhaps from an action on the heat centres in the brain.

The gross effects detailed above will be recognized in the provings, but these also add the finer shades which clinical experience has elaborated into trustworthy indications for the use of the drug as a remedy. It must be noted again that tincture of belladonna is the subject of the provings, and contains more than atropine. For instance, among its mineral constituents, phosphate of magnesia is prominent. Homœopaths know this as an agent to relieve pain when the general symptoms of the case correspond, and it is possible, seeing that atropine shows little power to cause pain even in large doses, that the undoubted efficacy of belladonna in certain painful affections is due to the mag. phos. which it contains. This of course would not be the explanation of relief from its use in (say) biliary colic ; there its successful action would have to be explained as a relaxation of spasm.

Primarily, belladonna acts on the brain ; unless symptoms of cerebral origin are prominent, it is not likely to prove the desired remedy for any complex case.* Herbivora (especially the rabbit) are all but immune to its poisonous action, and it has been suggested that the explanation of this is to be found in the relatively poor brain development. It seems, however, more probable that in rabbits and other herbivora atropine is broken up in the blood by a mechanism that does not exist in carnivora or in man. It is nevertheless a good observation that the more mentally developed respond on the whole better to belladonna than do the less developed. Hufeland, Hahnemann's famous contemporary, even said that on idiots it hardly acted at all. It would, however, be a mistake to push this idea too far. The deep-acting drug that corresponds most closely to belladonna is *calcarea carbonica*, which is notoriously often of extreme value in rather stupid children,

* This does not apply to simple cases, *e.g.* ordinary sore throat.

though even here a qualification may be made, in so far as it is not so much congenitally stupid children that respond as those who suffer from mental deficiency the result of disease. For instance, slight degrees of defect in thyroid secretion often become normal under calcarea and the slow, backward child becomes intelligent (see calc. carb.).

Belladonna is on the whole a remedy of swift but not very prolonged action, suitable for acute and sub-acute disorders. The most marked general characteristic in its pathogenesis is sensitiveness—both general and of the special senses. Every stimulus becomes almost unbearable, light, noise, any motion or jar will aggravate suffering. Response is very quick and the heightened sensation causes great alertness and irritability. Its general reaction to heat is one of relief: subjects that need it are chilly, made worse by cold air or applications and relieved by heat. The pains developed in its provers are severe and of great variety, throbbing, burning, cutting, but all relieved by heat. It is characteristic for them both to come and to go suddenly: they are paroxysmal. Paroxysmal pains relieved by heat resemble the pains produced by mag. phos., and it has already been suggested that possibly the presence of this mineral in belladonna is responsible for the causation of belladonna pain and the power of the drug to relieve it. It is also noteworthy that both mag. phos. and belladonna affect predominantly the right side of the body.

The pains that call for belladonna are often those accompanied and caused by acute local inflammation: the classical signs, heat, redness, and burning appear notably in the belladonna pathogenesis, and it sometimes seems to abort acute local inflammations if given early, *e.g.* in furunculosis. Over inflammations of serous membranes, especially of the peritoneum, its remedial power is very marked. Pleurisy more often requires bryonia, and meningitis apis, though either may present belladonna symptoms and respond to the drug, but for any form of acute peri-

tonitis belladonna comes into the very front rank of remedies. Acute appendicitis, salpingitis, or other pelvic peritoneal inflammation, whether operation be needed or not, will almost certainly benefit from its administration. The characteristic picture is one of acute onset, with sudden severe paroxysmal pain, constipation, high temperature, rapid full (not tense) pulse, flushed hot face and dilated pupils, a semi-stuporous state frequently broken by sudden starts, cries, outbreaks of delirium: there is a tenderness of the abdomen, which, like the pain, is relieved by heat locally, an excessive sensibility to any stimuli whenever the stupor is broken, a throbbing, pulsating headache. The exposed skin feels hot and dry—though the parts covered sweat. There may be a definite erythema. The pains (apart from joint pains) are often aggravated by lying down—which leads to attempts to move about unless the illness is very severe, and easily distinguishes the case that needs belladonna from the case calling for bryonia. In pleurisy or pleurodynia the patient who is helped by bryonia lies on the affected side to limit its movement, the candidate for belladonna lies for choice on the sound side.

Such a symptom picture as that detailed above may appear in many acute conditions, and whenever characteristic will call for belladonna. The facts that with belladonna the pharynx is dry and inflamed and the skin shows a smooth red rash have naturally led to the use of the drug in scarlet fever, but it is a great error to suppose that it is always indicated in that disease. It is necessary for the kind of symptom-complex to be present which has been described; and the characteristic rash is the smooth, even, scarlet rash which does not appear in all scarlatina epidemics or cases. From the time of Hahnemann physicians have believed that belladonna has a prophylactic value in epidemics of this disease: if the prevailing type is really similar to the belladonna pathogenesis, a prophylactic use of the drug is possible enough to make it worth while

to give likely sufferers the benefit of the doubt. But it is neither proven nor even likely that it will ward off any and every infection of scarlet fever. To establish its value in this respect is far from easy. Experiments made at a big fever hospital in America were entirely negative as far as concerned the existence of any protective value as a result of the repeated administration of low potencies. But before the point can be regarded as finally determined, further experiments are desirable. Whatever the protective body mechanism may be that wards off scarlet fever infection or modifies its virulence, it can only be by a stimulation of this (if at all) that belladonna possesses a prophylactic value. Presuming that it can stimulate this resistance, analogy to vaccines would suggest that the healthy should receive rather one (or two) large doses than repeated small ones. Conceivably also high potencies (in single doses) might develop resistance. Baptisia only causes the appearance of specific agglutinins in the healthy after large doses, and until belladonna has been tried as a prophylactic in full doses of tincture (one or two), its claims cannot be finally dismissed.

In the mental sphere, belladonna is characterized by symptoms of violence, delirium (furious and loquacious), agitation, and excitement. Between the attacks of excitability there will generally be a state of semi-stupor, which may end in dementia. Fantastic illusions occur, terrors and startings from sleep (especially at night ; the marked dread of darkness is characteristic of stramonium) : there is generally ill-temper, often anger, and fear is a prominent symptom. The mania that calls for belladonna is furious but not obscene : the latter state is more often met by hyoscyamus.

Acute headaches are often much helped by this drug. Hyperæmia of the head, with flushed cheeks and dilated pupils, and a throbbing, pulsating, sharp pain, that both comes and goes suddenly, paroxysmally, these are the characteristic features. There will be marked vertigo, perhaps disturbances of vision.

The pains are worse for lying down. Spasm and twitching are frequent symptoms, or convulsions. If exanthemata in children begin with violent convulsions, belladonna is often the remedy to give the cases a good start. Paroxysmal spasms and convulsions of cerebral origin are so characteristic of belladonna that it is naturally thought of in epilepsy, and to the prominent symptoms of an attack it can show a close parallel in its pathogenesis. It is not, however, a very deep-acting remedy. So that its undoubted value is mainly in quite recent cases or as a temporary aid to diminish the frequency of attacks.

With the special senses, the dilating effect on the pupil is well known. Acute conjunctivitis with little secretion may be helped by it: the nasal mucous membrane is made dry and burning by *Belladonna*. Reactions to sense stimuli are generally heightened. Two cases of poisoning resulted in complete deafness. This was almost certainly due to a central cause, and Dr. Cooper reported some success in chronic nerve deafness with belladonna in "unit" doses.

The mouth is dry and parched with thick viscid saliva. The tongue red, hot, dry and cracked, sometimes coated. The papillæ may be prominent. Toothache from inflammation, with redness and swelling of the gums, often obtains relief from belladonna when pain is violent, paroxysmal, and relieved by heat. The throat is bright red, dry (even-glazed), burning, and painful: swallowing and talking are alike painful: the tonsils may be inflamed, but, except in the very early stages, acute tonsillitis more often responds to baryta and later to guaiacum or hepar. sulph. In the early stages, however, it may be checked by belladonna or apis. If belladonna is indicated, heat is comforting to the patient. Follicular tonsillitis generally needs phytolacca or mercury, diphtheritic cases cyanide of mercury, lachesis or lycopodium. Chronic tonsillitis (when operation is regarded as unnecessary, as it may be when homœopathic treatment can be given steadily) generally

responds well to calcarea, which is the chronic counterpart in so many ways of belladonna.

With the thirst there is sometimes considerable hunger: gastric discomfort is considerable, but the colic characteristic of belladonna affects more the lower bowel. It causes violent, spasmodic pain, worse after eating (probably from stimulation of the gastro-colic reflex), and there is generally constipation. The abdominal pain is severe, burning and cutting, and the distended abdomen is very sensitive to touch or even to jarring of the bed. It may be accompanied by vomiting, so that a fairly close picture of biliary colic can be made out of the pathogenesis. Atropine is often of more value in this emergency than opium, and though it is usually given in a material dose it is possible that its action is homœopathic (*i.e.* it relieves spasm and can cause spasm), and belladonna in potencies has been praised by physicians. More often, however, homœopaths think of calc. carb. in potency for biliary colic, once more indicating the close symptomatic resemblance between this drug and belladonna.

The patient who requires belladonna is more often than not constipated. Spasm of the anus and tenesmus are common symptoms, and sometimes there are frequent small loose stools with little or no bile in them.

In the genito-urinary sphere belladonna is useful for incontinence of urine (though in enuresis of children calcarea is usually of more permanent value for the cases whose type suggests belladonna). Spasmodic retention will benefit from it when other symptoms agree. It has value for spasmodic dysmenorrhœa and spasmodic ineffective labour pains if other symptoms confirm the choice. The menses are likely to be premature and profuse, the flow bright red and hot as it passes. Whether this be due to actual heat of the blood, or (more likely) to sensitiveness of the parts, it is in conformity with the hyperæmic condition induced by and curable by belladonna. Sharp pain appearing to start in the

vagina and shooting upwards, internally, is a well-known and trustworthy confirmation in the pains of pelvic hyperæmia, whether menstrual or other.

Soreness of the vulva and vagina associated with free secretion calls for other remedies, but where acute and dry belladonna may be very useful for a few hours to control inflammation of these parts as in the early stages of vulvitis, vaginitis and urethritis, specific or simple. The power of belladonna to cause local congestion leads to hæmorrhage with some frequency in its pathogenesis: various bleedings (uterine, hæmorrhoidal, nasal, etc.) appear.

In the respiratory tissues the effect of belladonna on the nose in drying up secretions and causing irritations is continued into the larynx and trachea. Consequently it becomes a remedy for a dry, tickling cough, excited by any touch on the larynx, with a sense of constriction and often painful stitches in the chest. The voice is weak and hoarse. Often the cough is spasmodic, and the orthodox prescription of the drug in whooping cough could often be justified on grounds of homœopathicity. The tickling is as of dust in the larynx, and the resultant cough fatiguing, the continued strain of it may cause hæmoptysis. Pleurisy cases may suggest belladonna now and then (see page 115), and the cough of early tuberculosis is often much relieved by it, although its chronic counterpart calcarea is as a rule preferable, because of its deeper curative action. If, however, calcarea is being given in early phthisis in single spaced-outdoses (usually the method of choice), it is often convenient to give as well a palliative for such a troublesome symptom as the ineffective teasing cough, and for this purpose in these cases belladonna is much the best. It can be given in low potency without interfering with the calcarea.

Some of the dyspnœa of belladonna is due to its action on the heart; symptoms that call for it here are tachycardia with violent palpitation. Asthma cases are not very often of the general belladonna type, but the drug should not be forgotten when the

spasmodic element is predominant and there is little or no bronchitis. The tachycardia suggests also its use in Graves' disease, and it can show tremor in its pathogenesis, and some indications of effect on the thyroid gland. Nevertheless, the use of it is seldom efficacious in this disease, for such resemblance as there seems to be is really superficial, and the disease has as a rule too profound a causation to be much influenced by a drug of (relatively) brief and shallow action.

In the nerve-muscular sphere, the neuralgias characteristic of belladonna have been mentioned already. The pathogenesis shows many pains in joints and limbs, with cramps and tremors: the pains are severe and show the sensitiveness to external stimuli characteristic of the remedy. Its use may be now and then suggested in acute or sub-acute rheumatism, or more often in gout. Although the general reaction of belladonna is to have symptoms made worse by rest, this does not apply to joint pains, which are aggravated by movement.

The effect on the skin is to cause an erythema which may assume an erysipelatous appearance. Local redness, swelling, heat, and pain are all belladonna symptoms, and it has real value in acute skin inflammation (erysipelas, etc.). Laboratory evidence of its power is lacking as yet, but from pathogenesis and clinical evidence it is quite probable that it would be found to have a specific influence on at least some varieties of streptococcus. In general, belladonna is indicated in acute illnesses with marked excitement and violent reaction. There is great tendency to hyperæmia of parts and great general sensitiveness to external stimuli. The time of greatest suffering is usually by night rather than by day, although from three to four in the afternoon (earlier than with lycopodium) there is frequently a secondary time of exacerbation of symptoms. The excitement passes into a semi-stupor for a time, and on the whole there is a good deal of somnolence in cases that call for the drug: the patients start from sleep or have terrifying

dreams, and the stupor is broken by paroxysms of violence and excitement, but in the course of twenty-four hours a considerable amount of sleep is usually obtained. Fever is generally continuous, with a full, strong, but not tense pulse. The skin is dry and burning, sweating chiefly or only on covered parts or amid thick hair. The head is nearly always hot, with a flushed face; the feet may be cold. It may be repeated that when belladonna is required, head symptoms are always prominent: often they are the first to appear (headache, etc.), and the other parts of the body are affected later. In spite of the signs of local congestions, patients who need belladonna are generally chilly and like hot applications and external heat.

Belladonna follows aconite well: the deep-acting drug, *calcarea carbonica* has a very close relationship to it, which has been already sufficiently emphasized, and whenever a case has responded well to belladonna, *calcarea* should be thought of to complete its action. It is interesting to note that belladonna grows best in dry limestone soils.

BRYONIA.

Bryonia alba. Tincture of root gathered just before flowering. *Bryonia dioica* is the common English plant, and has been used with such success on the indications for *bryonia alba* that the properties of the two plants are probably nearly identical, but as the provings are of *bryonia alba*, it should be preferred.

Bryonia was in use in Hahnemann's day as a drastic purgative, and a line or two is given to it occasionally in modern text books emphasising this

use. Also it appears sometimes in drug lists with recommendations to be used for pleurisy and arthritis. As will be seen, its provings and homœopathic experience amply confirm its value in these spheres, and the recommendations are probably unconscious echoes of homœopathic therapeutics. It seems to have been a favourite remedy of Hahnemann, its provings are good, and clinical experience of it very wide, so that its spheres of action can be defined with confidence.

There is one characteristic of bryonia that stands out prominently, and that is the intense aggravation of symptoms from any movement, even the slightest. In arthritic cases, in pneumonia, in pleurisy, whenever, in fact, bryonia is indicated, it will be found that the patient instinctively shrinks from any movement and finds suffering much increased by it. This is true of involuntary movements, like those of ordinary inspiration, when the pain is in the chest : thus in pleurisy that calls for bryonia, the patient will prefer to lie on the affected side, so as to fix it as much as possible and limit its movement. Precisely the opposite condition is true of belladonna, where the patient prefers to lie on the unaffected side. Not only muscular movement aggravates the pains of the bryonia patient, but what may be called exercise of the nerve centres ; in other words, mental exertion is distressing to the sufferer, and in bryonia cases headache, sleeplessness, fever, will all be aggravated by any attempt to use the higher brain cells.

There is a very definite type of fever which calls for bryonia. Sometimes in the beginning the symptoms of it will have suggested aconite, but though this drug may have given some relief, the fever will continue, and presently the typical aconite features will disappear, and the choice come to be rather from among bryonia, rhus tox., arsenicum, etc. Bryonia follows aconite well, and will often continue its work satisfactorily. In other cases bryonia may be indicated from the beginning. Typical influenza fever more often finds its counterpart in gelsemium

or baptisia, but now and then bryonia is called for. Pneumonia cases often require it, and enteric or typhus cases. It will be clear from this sentence that the drug is suitable to fevers of a profounder kind than those that react to aconite, to conditions which may begin somewhat insidiously but gradually worsen till the typical bryonia picture is reached. An insidious onset is not, however, invariable, and bryonia symptoms may appear early in rheumatic fever or pneumonia or pleurisy. When well developed the condition is as follows: The patient lies like a log, avoiding the least movement; the senses and intellect seem dulled, and any attempt to rouse the mind seems to aggravate the condition. This makes the sufferer very resentful of any interference or questioning, intensely irritable and averse from talking. There may be fits of anger. The memory is weak, and attempts to remember cause suffering. At night there will very likely be delirium (usually of an active type) or broken sleep, and both delirium and dreams are very likely to be concerned with the affairs of the day or the patient's business and immediate personal concerns. The irritability and weakness of the mind appears characteristically (especially in children) in the form of vague inconstant desires for something which the patient fails to define. He wants something, but cannot make clear what it is. Throughout, the intense aggravation of sufferings from any movement persists. If the head is lifted from the pillow there may be faintness, nausea, even vomiting.

The headache that indicates bryonia is a severe pain, dull and throbbing, with acute sharp stabbing pains at intervals, especially after movement. It is largely felt in and over the eyes, and is relieved by hard pressure and cool applications. This headache usually accompanies the fever, but there is a frontal headache characteristic of bryonia in non-febrile cases often associated with dyspepsia, at its worst in the early morning, much aggravated by movement and especially by stooping. It is a throbbing

pain, and recalls in its features the headache of natrum muriaticum, which is a chronic counterpart of bryonia. Febrile patients are naturally thirsty, but the thirst of bryonia cases is characteristic, being for large quantities at fairly long intervals; with arsenicum, on the other hand, the thirst is for small quantities frequently. There is usually profuse perspiration, often sour, after the least movement, when bryonia is called for. The mouth is very dry, the tongue coated white or yellow down the middle (the edges may be clean); the lips are dry and cracked. The mucous membranes generally are dry—and secretions scanty; but bryonia does not affect them as a rule to the point of severe inflammation as does arsenicum. Bryonia in febrile complaints comes often to be considered in pneumonia and rheumatic fever (in both of which it can claim attention on the score also of local symptoms, as will be seen), and in influenza, meningitis (rarely), enteric, and typhus fever. In the last named, Hahnemann valued it extremely, and the bryonia type of fever is perhaps more exactly met with in that disease than in any other. The enteric cases that call for it are generally among that relatively small percentage wherein the sufferer is constipated. Typical cases with loose stools more often need arsenicum; the characters of the bryonia bowel symptoms will be described presently.

The brunt of the onset of bryonia, as far as tissues are concerned, falls upon serous membranes and fibrous tissues generally. Thus bryonia may be called for in meningitis or peritonitis, but especially in pleurisy. Pains are sharp and stitching and worse from the least movement. The dry cough and general symptoms of pleurisy will often find their counterpart in bryonia provings, and even if effusion has occurred it may still be the remedy needed, though it is most efficacious when given early. The patient lies on the affected side to limit the chest movement, as already noted. Bryonia will also benefit many cases of pneumonia · its characteristic

general symptoms will give the clue to its use, and locally the presence of any pleurisy is a strong additional indication. It is a remedy for lobar pneumonia, seldom for broncho pneumonia, and for pleuro-pneumonia most of all. If the pleurisy turns to empyema the case seldom then calls for bryonia ; it seems to have little power in checking suppuration.

Bryonia affects the muscles, making them sore and irritable. Probably it is upon the fibrous supporting tissue that it acts ; it also affects fascia. But in the motor system its power is chiefly shown upon the joints. It causes an acute synovitis, with pain, redness, heat, swelling from effusion, all the symptoms of acute joint trouble, and aggravation from any movement, as always, is marked. The great distinction between bryonia and rhus in joint and muscle disorders is that when rhus is needed, though the first movements may be painful, continued movement gives relief. In view of this definite power to affect joints (small and large, but large rather than small, on the whole), bryonia is naturally a great remedy for acute rheumatism, and the heavy, sour perspirations which it can cause form an additional point of resemblance. It is usually (especially when general as well as local symptoms are present) a very speedy and satisfactory remedy, and shows its curative power by minimising the risk of serious heart affections. Pericarditis will often need it and respond to it. As compared with the usual salicylate treatment, homœopathists find that bryonia will relieve pain if not as quickly yet more permanently, but it is true that cases are met with wherein bryonia seems reasonably well indicated, yet fails to act. These are not, however, very common. At the same time, no homœopathist can accept any routine treatment for any disease ; each case must be individualised, and there are many drugs with great power to influence joint structures (rhus, spigelia, pulsatilla, sulphur, guaiacum, etc.), so that in all cases good symptomatic grounds should exist before a confident prescription of bryonia is made.

Besides its marked action on the chest and the joints, bryonia affects notably the alimentary canal and the liver. Indeed, it has been held that its main effect is exerted here. It is often indicated in meat-eaters (the so-called "gouty") and its power to influence arthritis may conceivably be secondary to its power over metabolism, rather than directly over the m. rheumaticus or other germs, seeing how notably metabolic disturbances seem to predispose to certain joint disorders; Both the heavy perspirations and the thirst for large quantities of water which suggest bryonia in such subjects may be indications of attempts at excretion of excessive waste products. There is no clear evidence that it inflames the gastric or intestinal mucous membrane, although it may fasten on the fibrous supporting structures. It unquestionably affects the liver, there, too, probably, by the road of the fibrous capsule and interlobular supporting tissue. A certain degree of jaundice is not uncommon, and pain and discomfort in the liver region are generally prominent in bryonia subjects. The general result of its action on the alimentary canal and allied glands is shown in the following symptoms. There is a foul, yellowish, coated tongue (like "washleather"), with an appetite often capricious and for unusual things. Bryonia patients are often coarse feeders. There is the characteristic thirst for large quantities at a time. The face is flushed after meals, and a chronic frontal headache appears, aggravated by meals (and especially also by bending forward). Food appears to the patient to be "like a stone" at the epigastrium; there is nausea, waterbrash, bitter and sour eructations. Belching of flatulence relieves gastric discomfort temporarily. Pressure and dull pain appear in the right hypochondrium, and often a yellowish tint to the conjunctiva, though seldom any marked jaundice. The secretions of the digestive glands in the stomach and of the bile seem to be affected. The bile is either increased in quantity (in which case there is diarrhœa, worse in the morning, worse

on movement, worse in hot weather), or more frequently diminished, when there is constipation of a characteristic type, large, dry, hard, crumbling stools, brown or black, almost as if burnt. All alimentary canal symptoms of pain and discomfort are aggravated by any movement. This is the unfailing characteristic of bryonia. The symptom-picture thus outlined is one that occurs frequently in so-called "gouty" dyspepsias, and bryonia is invaluable in many such conditions. It is less often indicated in gastric or duodenal ulcer, though, as already stated, its power over enteric fever is considerable. Its action on serous tissue gives it an influence on the peritoneum, but the varieties of peritonitis do not very often present the typical bryonia symptom-complex.

In the respiratory sphere its curative influence over pleurisy and pneumonia has been commented on. It has also value in laryngitis and tracheitis. The vocal cords are inflamed, but bronchial mucous membranes (and nasal) escape its influence, so that it does not come prominently forward as a remedy for bronchitis. Typically there is hoarseness, with a dry cough, often an inclination to draw deep breaths, then stitching pains (worse on inspiration) commence, and the respiration grows short and hurried. There is tickling in larynx and trachæa, often referred to a point low down behind the sternum. Expectoration is scanty and may be blood-stained; it is raised with some difficulty. It meets many influenzal and pneumococcal infections of the air passages. There is little evidence of power over tubercle. Among other symptoms, bryonia causes mastitis and is often valuable for this trouble. A pain in the left ovarian region seems a genuine symptom, relieved by lying on the affected side.

Most bryonia symptoms are aggravated by warm rooms, warm weather, or getting warm. Thus the typical dry cough will come on after entering a warm room and be relieved on going into the cool air. (Phosphorus shows the exactly reverse symptoms.)

Warm food is disliked and the large draughts of cold water craved for often seem to relieve. Yet dyspeptic symptoms seem sometimes to follow the drinking of large quantities of cold water in hot weather. Joint pains are relieved by warmth. The aggravation from any movement cannot be too often insisted on. The times of intensity of symptoms are about 9 p.m., and for headache, diarrhœa, etc., in the morning on rising or a little before as with *natrum muriaticum*.

Natrum muriaticum is a chronic counterpart of *bryonia*, and *alumina* also has many points of resemblance. *Calcarea* and *bryonia* are somewhat inimical and follow one another badly. The drug has been praised and valued in all potencies from the tincture to the highest.

CALCAREA CARBONICA.

Calcarea Ostrearum. Triturations of the Carbonate of Calcium existing as the soft white substance between the hard layers of oyster shells. Higher potencies also made by tinctures.*

This is one of the greatest remedies of the homœopathic pharmacopœia, invaluable especially in the treatment of children. The effects of *calc. carb.* are nearly all due to its calcium, a metal well known to non-homœopathic physicians as a poison, though comparatively little therapeutic use is made of its specific properties by them.

* Hahnemann chose this source of lime for his preparations with the conception, so familiar to older medicine, that a mineral produced in the course of life, by a "vital" reaction, would be specially suitable to influence living bodies. It is a not quite pure carbonate of lime.

Calcium is a normal element in the body, and in bones and teeth it is present in quantity. It is also essential to metabolism. It is slowly absorbed from the alimentary canal, and if large doses are given most of it passes away unchanged, but small quantities of even insoluble preparations are taken up. It is also slowly excreted : when there is any excess of it in the body the surplus seems to be withdrawn from the circulation in some way and gradually returned for elimination ; but the calcium content of the blood may remain high for some time (*e.g.* after an injection of a calcium salt). It is excreted through kidney and large bowel, chiefly from the latter, in the form of insoluble phosphate. Consequently, phosphates need to be freely available if this mode of excretion is to proceed.

There is some uncertainty as to the remoter effects of calcium as far as regards the details of its action. As will be seen presently, the symptomatology that suffices the homœopathist for a prescription of the drug is full and reasonably precise : it is the interpretation of the symptoms in terms of cellular activity that is obscure. The neuro-muscular connections in striated muscle appear to be weakened by calcium, and later the muscle itself. Constipation is often a sequel of its administration, and is possibly due to a nerve-muscular action on the involuntary muscles of the bowel. The heart action is first strengthened and later stopped by calcium, and its salts make the blood vessels contract when passed through them. It has been stated that tissue cells become less permeable under the influence of calcium, so that a tendency to œdema can thereby be lessened : this is not established yet as a fact, but homœopathists certainly find that the tendency to urticarial eruptions is a good indication for calcarea.

The effects of lime in excess are, therefore, as yet not fully explained. Those of lime starvation, however, are better known. They are most marked over young growing life, and resemble the effects of

rickets and osteomalacia. Less lime is deposited in the bones. Both heart muscle and skeletal muscles seem to require the presence of calcium for full efficiency and suffer in the absence of it. The ova of various organisms (*e.g.* frog) will not develop if there is no lime present in the water in which they are. Rennet will not coagulate milk (nor will blood coagulate) in the absence of lime salts. The action of the lime in the latter case is concerned with the fibrin ferment, which cannot be developed without it. Because of this action, lime salts (especially calcium lactate) have been given by the mouth to increase blood coagulability when this property is deficient.* It has been both asserted and denied that this practice is effective: homœopathists know hæmorrhages of certain kinds and qualities to be indications for calcarea and to be remedied by it, and it is natural to connect its controlling powers with its relation to blood-clotting. But it would be the instinct of the homœopathist only to expect calcarea to be effective as a remedy when the totality of the symptoms called for it, and not only the one symptom of hæmorrhage. The divergence of opinion as to the effect of calcium lactate by the mouth may conceivably be explained by realizing that if the subjects to whom it was given were in need of the drug constitutionally, they would respond to it, and otherwise not. In any case, in homœopathic hands calcarea acts in potency when well chosen, and its action in such cases cannot be dependent on its mass.

Other ferment actions (*e.g.* digestive ferments) also appear to be influenced by calcium in their efficiency. The effects of oxalates and fluorides in quantity on the body are attributed to their power to withdraw lime.

Calcium and potassium appear to neutralize one another in the body—each opposing the action of the other. Similarly, calcium antagonizes magnesium, and sodium also, according to the teaching of Loeb. Clearly, for efficient life there must be an

* There is no deficiency of lime in hæmophilia.

equilibrium of inorganic substances in blood plasma, and excess of any one of these just named elements is harmful.

Cartilage seems to combine with lime with a special readiness. This has a bearing on the treatment of rickets with lime, as will be presently seen. The parathyroid glands seem to influence lime absorption in the body, and the administration of lime salts is held to influence favourably the tetany that follows their removal.

Lewin notes that urticaria may follow the administration of calcium chloride, and a similar eruption that of lime water. The latter, if given to excess, causes anorexia and impaired digestion, even vomiting.

The therapeutic value of lime to the non-homœopathist is not great ; but to homœopathists (and to Hugo Schulz) it becomes a remedy of great power as soon as the provings and their symptomatology are used as the basis for its prescription. As with all great constitutional remedies, the choice of it largely depends upon the presence or absence of certain general symptoms. Prominent among these is the mode of reaction to external temperatures. Calcarea subjects are always susceptible to cold in a high degree : they seek warmth and are relieved by it. In this respect the drug differs markedly from sulphur, among whose indications relief from cold and aggravation from heat are prominent. Cold feet and hands are particularly noticeable in those who need calcarea, especially cold feet and legs : there is a "clammy cold feeling" compared to that produced by damp stockings : chilblains are frequent, and other evidences of deficient circulation in the extremities. This deficiency in the power to resist external cold is only one of the deficient reactions of the typical case for calcarea. Such a case is slow mentally and bodily, slow in movement, slow in thought, slow to learn as a child, though often painstaking and industrious—the very reverse of the precocious child who suggests lycopodium.

Often the children (calcareia is pre-eminently a child's remedy) who call for the drug are fat, with large heads, but their fat seems to result from deficient powers of metabolism, and they do not give an impression of health. The skin is pale (to call it chalky is both a true adjective and a convenient mnemonic), though the face flushes easily for a moment or two. Sweating is profuse, especially about the head, wetting the child's pillow, and is generally sour smelling. The lymphatic glands are often enlarged and hard. The fontanelles close late and teeth are delayed in coming through. Development is slow, like speech, thought, gait and movement. The sleep in children is often broken by night terrors at about 2 to 3 a.m.

This symptom-picture already suggests a deficiency of thyroid secretion, and although calcium metabolism is generally associated with the parathyroids, even more marked degrees of such conditions as are often successfully treated with thyroid extract will respond to calcarea. This applies even to symptoms such as nocturnal enuresis, which has often been cured (and occasionally caused) by thyroid extract, and will often yield to calcarea when other symptoms correspond.

Seeing that lime starvation leads to a condition resembling rickets, it would be an easy suggestion that rickets is thus accounted for, and that treatment with lime should be curative. Homœopaths in actual fact find in calcarea and silica the principal remedies for this disease, but as the lime acts curatively in potencies, they at least cannot claim to be supplying a gross deficiency. Rather they would recall the undoubted relation of lime to cartilage, and believe the drug to be a stimulant to the natural powers that lead to bone formation. This view is strengthened by the fact that there is actually no evidence of lime shortage in most cases of rickets: the hypothetical deficiency does not exist, and therefore no massive doses of lime are called for.

Deficient metabolism and slow reaction are thus

characteristics that call for calcarea and the pronounced "chilliness" of the pathogenesis is to be read as an integral feature of this condition. But although the patient feels the cold acutely, and is made worse by it, and has predominantly cold extremities, there is evidence of some vaso-motor instability as well, which leads to temporary heat and burning of parts of the surface (*e.g.* head or feet), usually as a condition precedent to sweating. Care is needed to distinguish the temporary from the more usual condition.

Mentally, the general slowness is again exemplified as has already been remarked. There is great anxiety of mind, which leads to all kinds of nervous apprehensions. It is part of the mental sluggishness that these are with difficulty expressed and with great difficulty combated. The night terrors of children cannot be coherently explained, and in older patients there are vague fears and visions of fever or delirium which cause intense apprehensiveness.

Vertigo is a prominent symptom, and feelings of faintness and sinking sensations. Trembling, twitching and spasm, even convulsions, call for the drug, especially if the nervous symptoms are associated with vague fears or with loss of body fluids (*e.g.* after hæmorrhages, sweatings, profuse leucorrhœa, or seminal emissions), for the after-effects of which calcarea will compete in value with china or phosphoric acid. The worst time of the twenty-four hours for the calcarea patient is 2 to 3 a.m., the hour when general vitality is apt to be at its lowest. Severe chronic diseases like epilepsy or asthma will respond to calcarea when the general symptom-picture of the disease and drug are alike.

Calcarea can cure both sensory and motor nerve symptoms, both neuralgias and paralyses, when other symptoms call for it. It is the chronic counterpart of belladonna, and whenever this drug has temporarily relieved, calcarea is very likely to produce more permanent improvement.

Homœopathic observation certainly places calcarea among the drugs which have a power to control hæmorrhage, especially menorrhagia. If the menses are too early and too profuse, that is the characteristic symptom. Profuse leucorrhœa between the periods is a symptom of calcarea. Also clinical experience finds that small non-malignant growths (*e.g.* papillomata or polypi) often occur in subjects that present the general symptoms of calcarea, and the drug has a considerable reputation in such cases. It is often noted that these patients are very susceptible to damp weather, and the reaction of calcarea subjects to this kind of atmosphere is nearly as marked as to cold.

Urticaria is a symptom that suggests calcarea. The skin itches readily and there is often an unhealthy state of nutrition, so that small injuries heal badly and suppurate readily.

Apart from the general effects of the drug, it has marked local action on the digestive and respiratory systems. It tends to cause chronic catarrhs of mucous membranes. The secretions are considerable from the nose (*muco-pus*), and there is a tendency to the development of polypi and especially to overgrowth of lymphatic tissue (tonsils and adenoids). Whenever there is real obstruction from such overgrowth, or such a symptom as deafness, to remove the tissue-masses is usually imperative: when there is less urgency, proper training of the child in breathing and care and cleansing of the passages will often work wonders without drug treatment. But observation certainly shows that many cases of enlarged tonsils and adenoids occur in patients who on general grounds suggest calcarea, and it is the confident belief of homœopaths that the use of it assists hygienic measures to such an extent that it should not be omitted. The phosphate of lime is the favourite preparation for these conditions. Acuter diseases of nose and throat do not often benefit from calcarea, for just as the patients are slow in reaction, so is the drug slow to develop

its power. Descending the respiratory tract, there are found symptoms of a marked character, namely, tickling (as of dust) in the larynx, causing a dry, irritative cough, and later, expectoration of mucopus, often with blood. Pains in larynx and chest are common, and there is generally a nocturnal aggravation. Dyspnœa and oppression, wheezing and gasping, with pain and anxiety, are deeper symptoms still. Taken in conjunction with the alimentary canal symptoms, presently to be described, and the profuse sweating, the picture strongly suggests early tuberculosis, and clinical experience well justifies the choice of calcarea in this disease. Its power over early tubercle of any organ is considerable, and not least over the form of disease in young growing subjects, which begins in the mediastinal glands and travels into the lungs. Some observers think that there is a right-sidedness in the calcarea pathogenesis worth remarking.

Among cardiac symptoms, palpitation and pain are prominent. Calcarea arsenicosa, the arseniate of lime is particularly valuable when there is an intermittent pulse, but here no doubt the arsenic element counts for something. Chronic heart disease cases, apart from such emergencies as demand special remedies, derive much benefit in the way of strengthened compensation and improved muscular and nervous "tone" by regular courses of various iodides. Among these the iodides of arsenic, barium, gold, and calcium hold the most important places, and when the subjects of disease are young, growing persons, calcium iodide is very valuable.

Along the alimentary canal there are noteworthy calcarea symptoms: the tongue is dry and coated white and there is a sour taste in the mouth. The appetite is often excessive, though thirst often predominates over hunger. In young children there is sometimes a curious craving for indigestible things, and babies, if not carefully watched, will rival puppies in their desire to try the taste of anything and everything. After a meal, there are sour eruc-

tations, or even sour vomiting, with gastric pain, distension, and sense of pressure. Cutting, severe pain is referred especially to the region of the gall-bladder. The catarrh which the drug causes spreads to the gall ducts, and the expulsion of thick mucus from them causes pain. On symptomatic grounds calc. carb. has been used (with considerable success) in attacks of gall-stone colic. Fermentation and impaired digestion extend through the alimentary tract, and the bowels are usually constipated: evacuation is difficult, and the stools pale and white. In children, however, there is often a sour-smelling, excoriating diarrhœa, exciting a spasm of the anus and eruptions on the buttocks. To meet disorders of the locomotor organs (nerves, muscles, joints, fasciæ), the pathogenesis of calcarea supplies many symptoms of pain and stiffness, cramps and neuralgias, but the choice of it will be determined by the presence of the great general symptoms of constitution and temperament rather than by the local ones.

As regards sleep, the night terrors of children are noteworthy as indications for calcarea. By day the patients are drowsy as a result of the disturbed nights.

Calcarea is inimical to bryonia. It follows belladonna especially well, and has a close relationship to rhus. It follows sulphur well, but should not be given before that drug.

CHAMOMILLA.

Matricaria Chamomilla. Tincture of the whole fresh plant.

To the non-homœopathic physician, chamomilla is just one among many "bitters," with no distinctive virtues and hardly deserving of a line in a text-book. To the homœopathist, it is a most valuable remedy, with a well-marked sphere of action, for the provings develop characteristic symptoms,

and these find their counterpart in practice with considerable frequency.

Chamomilla causes symptoms in various regions of the body, but those that distinguish it most clearly are in the mental group, and unless the characteristic mental quality is present, the drug is seldom effective. This quality is in its essence a lack of control, of the power to inhibit the simpler reactions to pain or other unpleasant stimuli. It is a common observation in life that men "compound for sins they are inclined to, by damning those they have no mind to," and many of those who lament the lack of control shown by the sensualist or the quick-tempered, and incidentally pride themselves on the will-power that restrains them, in reality are only less tempted, not more controlled, and succumb quickly enough to their own weaknesses. But this observation by no means implies that there are no differences in power of inhibition. Two main factors are at work in each case, relative sensitiveness (which plays the main part in deciding the strength of temptation) and relative power of control. The first is a natural inheritance of the individual, though it can be heightened or dulled by accidental or purposive experience: the second no doubt is also largely inherent in the personality, but far more than the first is at the mercy of education and conscious effort. Patients who are suitable for chamomilla are probably more sensitive than their neighbours, but certainly they lack the power of inhibition and are rightly classed as lacking in control.

This remedy is consequently often indicated in those who make over-use of stimulants and certain drugs, for all of these, from tea and coffee to alcohol, morphia, or cocaine, tend to weaken the powers of inhibition. But as chamomilla is a swiftly-acting but not very searching remedy, it is more suitable to the relief of temporary emergencies in these subjects than to the cure of the underlying poisoning which causes or complicates these emergencies. More notably still does it help the conditions wherein the

poisons of disease are playing a part in the system similar to that which can be played by alcohol or opium in weakening inhibition. Here the drug is confronted with an emergency dependent on a sudden rather than on a chronic poisoning, and its action is much more nearly curative.

Chamomilla, therefore, is suited to those who complain of excessive sensitiveness, who find pain all but unendurable and have no power of bearing it with fortitude. On the contrary, they are moved to ill-temper and violent irritability, *e.g.* to the fits of passion that recall classical scenes in novel and drama, wherein gouty old gentlemen are shown and ridiculed for their irascibility. Peevishness, anger, fury—every degree of ill-temper may appear: there is impatience, rudeness to friends, to nurse or doctor, and an insistence on immediate relief to the symptoms which for the time are blackening the whole world to the unfortunate individual, and hardly less to those who are around him. All this ill-temper, however, is more in the way of a violent reaction to pain than the expression of a malicious or cross-grained nature. Between attacks the patient for whom chamomilla is suitable may be sweet-tempered and easy-going: in this respect he differs from the patient who indicates *nux vomica*. The anger characteristic of this latter drug is more deep-seated, and more a part of the underlying character, and though often better controlled outwardly, is much more dangerous and difficult. Beneath the stormy surface that suggests chamomilla there is no rancour or deep enmity. After the attack is over the patient will often show that he was really appreciative of the efforts made on his behalf, though quite unable to show his appreciation at the time of suffering. Small children, who are pre-eminently suited to chamomilla (for inevitably at a tender age great power of control cannot be expected), are soothed at once by being carried about and nursed in the mother's or nurse's arms. This is a very characteristic symptom and indicates that beneath all the peevishness

and rage there is a deep desire for sympathy and consolation.

Temporary emergencies of pain leading to lack of mental control, then, are suitable for the relieving action of chamomilla, but closer analysis reveals that the cause of these pain emergencies lies nearly always in some disorder of metabolism. Gastro-intestinal symptoms are nearly always prominent when chamomilla is successful, and when they are not, there is, nevertheless, as a rule good reason to suspect that a profounder metabolic defect is at the root of the pain, which may show as a neuralgia, dysmenorrhœa or arthritis. It is because opium and alcohol and such poisons delay and pervert metabolism, that the takers of them can so often be helped by chamomilla, but while it will often relieve the symptoms due to perversion of the deeper metabolic processes, its curative action is best executed to the more superficial emergencies, such, for instance, as may accompany gastro-intestinal catarrh.

Pre-eminently the period of dentition is a time liable to cause symptoms which yield readily to chamomilla. If a child is teething, then this drug is the drug of election for almost any temporary distress. For at the time of teething there must necessarily be some specific adjustments of metabolism to meet the bodily demand of growth, and any failures of such adjustment are precisely those likely to call for this remedy. Any toothache that exists (and chamomilla will relieve many toothaches) is characteristically brought on by warm drinks or coming into a warm atmosphere. The face sweats readily (perspiration is *hot*), especially after food. Usually one cheek is flushed, not both (as with belladonna): there is great thirst and sensations of heat. The tongue is heavily coated (yellowish white) and the breath foul. Food tastes bitter and gastric pain follows eating promptly, or if not sharp pain, then weight and heaviness. Much flatulence develops, with colicky pains, which are not relieved by passage of gas, and then an offensive diarrhœa sets in. The

motion feels hot and excoriates the anus ; it is usually of a yellowish green colour, and is apt to follow quickly on eating, especially if the food is warm. Aggravation from warmth is characteristic of those who need chamomilla. With these symptoms the mental condition already described develops, and with the ill-temper is a great sense of debility, out of proportion to the seriousness of the disease. The gastro-intestinal catarrh does not appear to be profound, and chamomilla is not often a remedy for ulceration, but many cases of infantile diarrhœa will yield quickly to it, and the relation of the drug to heat makes it suitable for summer diarrhœas as well as for diarrhœas of dentition.* If both indications are present, so much the better, but chamomilla acts best when given early in the attack : it will then promptly check it in a large proportion of cases. If the catarrh spreads to the bile ducts there may be jaundice, and catarrhal jaundice will yield to chamomilla if the mental condition indicates it. It seems to have some local action on the parotid glands, and nocturnal salivation is a symptom in the pathogenesis.

Besides toothache, diarrhœa, and other dentition disorders of the alimentary canal, chamomilla is suited to the skin affections of the period of teething : but the clue to its use will usually be given by the mental condition of the patient. It is certain that the results of disordered metabolism are very variable, and those that cause this peculiar irritability of the higher nerve centres with lack of control are pre-eminently the result of the conditions which chamomilla is able to relieve. Apart from rashes the skin in chamomilla cases is hot and sweating : hands and feet are hot, and the feet may be thrust out of bed for coolness (cf. sulphur). Hot applications worsen any pain there may be.

Neuralgias and painful joint affections are quickly relieved by chamomilla, if accompanied by the charac-

* Although hot applications and heat in general worsens the symptoms in chamomilla subjects, the general sensitiveness makes them also resent damp, cold weather, and especially high winds.

teristic mental symptoms. The pains often co-exist or alternate with numbness (Nash*) and are very severe, causing a restlessness that will lead the patient to get up and walk about for relief. It is to be noted that the night hours are usually a time of increased suffering when chamomilla is indicated. Laryngeal spasm has been cured by chamomilla, but here again the general symptoms gave the clue to the remedy.

This drug influences the female pelvic organs notably. The menses are excessive, with dark clots and much pain, causing the characteristic irritability before and during the flow. Between periods there is an acrid watery leucorrhœa. The dysmenorrhœal pains are severe, unendurable, of a bearing-down character. Back and thighs are affected as well as abdomen. Occasionally chamomilla is called for in labour, but here, too, the mental indications are the ones that suggest it.

CHINA.

Cinchona Officinalis. Tincture of the dried bark and potencies therefrom.

China is the common term among homœopathists for tincture of cinchona bark. Its most important alkaloid, quinine, was not isolated in the days when Hahnemann proved the remedy, and although for the majority of physicians quinine has largely taken the place of cinchona, homœopathists continue to use the tincture as originally tested, since the indications for its use are clearer than those for the relatively unproved alkaloid. The greater intensity of action of quinine does not compensate the homœopathist for its smaller precision of indication: china is a drug whose sphere can be well defined and, when indicated, is sufficiently active and efficient in

* Leaders in Homœopathic Therapeutics, p. 124.

potencies. Nevertheless, without any doubt the quinine in china is responsible for the larger part of its symptomatology, and the studies of the alkaloid which have been made are of the profoundest interest to the homœopathist. Besides quinine there are twenty odd other alkaloids present in cinchona bark. Their general effects seem to resemble those of quinine, though their presence in china probably helps to give the tincture a greater range of action.

Quinine affects the nutrition, and thereby the life of nearly all protoplasm, without (like strychnine) singling out any tissue for an especially intense action. The effect of it on protoplasm is that characteristic of stimuli in general, namely, small doses (or the first action of large doses before absorption is complete) encourage life activity, larger doses depress it, and doses large enough destroy it. This action is very clearly shown on many unicellular organisms: thus, the effect of the drug on the yeast cell impedes alcoholic fermentation, and quinine solutions are antiseptic. This effect on simple organisms is paralleled by the action of quinine on white blood cells. These are hindered in their movements and ultimately killed by quite minute doses of quinine. And the accumulation of leucocytes that normally takes place in local inflammation is largely prevented by the drug. Ordinary doses of quinine cause a certain leucopenia. The power of blood to oxidize substances in certain circumstances is lessened by quinine: and ferments such as pepsin, rennet, and others are hindered by its presence in moderate quantities, although their activity is increased by small quantities.

These phenomena are instances of the general effects of quinine as a protoplasmic poison. They can be traced in its action on the central nervous system, where a preliminary stimulation (small dose effect) is followed by depression, and on muscle, both of heart and arteries and muscle in general: these also have their power at first increased and then

weakened. Nerve trunks are very tolerant of it, and peripheral nerve-ends little if at all affected.

The special senses of hearing and (less markedly) of sight are very susceptible to the action of quinine. Degrees of deafness and ringing in the ears are easily produced by it. Total blindness has been produced, and a contracted field of vision and disturbances of the colour sense are fairly frequent. Although there is evidence of contraction of blood vessels and circulatory changes in both eye and ear, the probability is that these severe effects are caused by a direct attack of the drug on retinal nerve cells and those of the spiral cochlear ganglion.

The head after large doses feels heavy and confused: giddiness is common, and some degree of ataxia. In the rare fatal cases the respiratory centre appears to have ceased action, but in spite of the ease with which some symptoms of quinine overdosing can be produced, it is not a drug that is readily fatal. Dr. Cushny quotes a case wherein the dose of an ounce produced only some confusion and noises in the ears. Presumably its effects are so universal on protoplasm that vital centres escape a fatal concentration, the poison being distributed all over the body.

The stomach is irritated by quinine and diarrhœa has been caused, but although homœopathists (see below) value china highly in certain gastro-intestinal disorders, other physicians make little use of it for these conditions. It causes the uterus to contract by direct action on the muscle: similarly the spleen contracts, and (it is said) the bronchi also. The effect of spleen contraction is temporarily to cause a leucocytosis, but the characteristic leucopenia of quinine soon appears, if the drug is continuously given. Cushny* quotes Roth to the effect that a single dose causes the (splenic) leucocytosis, then follows a fall (mainly of lymphocytes), then a rise of polynuclears to the point of leucocytosis with lymphocytes remaining low.

Idiosyncrasies are frequent with regard to the

* Loc. cit.

action of quinine. Besides the effects already mentioned, susceptible individuals may show a variety of skin eruptions (mostly erythematous). Gastric and intestinal symptoms have been already noted. Of more importance is the appearance of hæmoglobinuria, which is undoubtedly an occasional sequel of quinine poisoning. Albuminuria also may occur. This hæmoglobinuria so resembles the black-water fever of certain chronic malarial cases that it has been contended that black-water fever is really quinine poisoning occurring in malarial subjects. But this view is now abandoned: the fact is that chronic malaria and quinine can both cause hæmoglobinuria (a parallel of deep significance to the homœopathist), and although quinine sometimes seems to provoke the symptom when given in chronic malaria, it can also cause it to disappear, both of these phenomena being quite in accordance with homœopathic experience with many drugs.

Any one of these more unusual effects of quinine may be accompanied with a rise of temperature, and some febrile symptoms may appear without many other marked effects of the drug. That is to say, quinine has undoubtedly the power of causing a rise of temperature in many persons. It is by no means a universal effect, is, in fact, an idiosyncrasy, but the homœopathist knows from drug experience that an idiosyncrasy is no more than an individual exaggeration of an effect universally produced, but usually only in an unnoticeable degree. Therefore, the idiosyncratic effects of a drug are good indications for its use in disease: although the normal healthy individual may seldom react to the extent of producing marked symptoms, yet the patient (especially the patient already affected "similarly" by disease) will be capable of reacting readily to the drug even in minute dosage, because of his heightened sensitiveness. For these reasons the fever of quinine, of little moment to the orthodox physician, is significant to the homœopathist. Furthermore, it was the febrile and other symptoms caused in his own person

by cinchona bark that led Hahnemann first to conceive that *similia similibus curentur* might be a sound generalization. It is perhaps unnecessary to repeat that the truth or falsehood of the principle does not depend on this one experiment. It was no more than a striking experience which turned the thoughts of Hahnemann into a definite channel. Only after years of patient investigation did he become convinced that this channel led to therapeutic exactitude and success. So that if the experiment itself were to be held fallacious, it would, nevertheless, have served the purpose of suggesting a fruitful rule of practice. But other experience than that of Hahnemann is reasonably convincing that cinchona and quinine do possess the power to produce in certain susceptible persons a sequence of febrile symptoms which form a parallel to those of the malarial paroxysm. Chill, heat, and sweating are the phenomena, accompanied, for those who are ready to note them, by various minor subjective symptoms comparable to those of which sufferers from malaria often complain.* Lewin,† who writes fully on this matter of quinine fever, rightly notes it as an exceptional effect, but records instances of it, and (though without any inclination to homœopathy) mentions and accepts Hahnemann's experience. He records temperatures of 38°, 39°, 40° Centigrade, and the regular sequence of shivering, dry heat with headache and sweating, though he notes that the last symptom occasionally is wanting. In animals quinine usually causes a fall of temperature if given in large doses.

The homœopathist, therefore, has a right to maintain that this drug, which pre-eminently cures malaria, has the power to produce symptoms which run parallel to those of malaria, and he finds in the hæmoglobinuria of quinine another similar symptom

* The rigor is the rarest of the three cardinal symptoms ; heat and sweating are more common, but a true shivering "chill" has been observed. In Hahnemann's case it was not produced.

† Nebenwirkungen der Arzneimittel.

to set beside the febrile phenomena. With these thoughts in his mind he is inclined to doubt the explanation of the curative action of quinine in malaria as purely a parasitocidal one. Rather he would suggest that since drug and parasite stir the system to similar reactions the drug may heighten bodily resistance to the enemy and overcome it by this means, indirectly rather than directly. Not that quinine is not directly poisonous to the plasmodium, and whenever drug meets parasite in sufficient concentration no doubt it kills it: this action may supplement the indirect one. But it is by no means clear that quinine can be kept concentrated in the blood to the point lethal to the malaria organism, and its affinity for body protoplasm is so great that there must be many chances of deviation of the drug. Similarly, the prophylactic virtues of quinine would seem to depend more upon the stimulation of a natural resistance and less upon the (hoped for) presence in the blood of enough parasiticide to kill the casual invader.

If the action of quinine is thus indirect, it would be reasonable to think that the natural powers of resistance would be more easily stimulated in some persons than in others. The homœopathist would say that the more closely the *whole* symptom-picture suggested the drug, the more likely would be the remedy to prove helpful: and would find in the fact of unlikeness between drug pathogenesis and case of disease an explanation of the undoubted failure of quinine in certain cases. But the drug will cure many and help others, and when it fails, or when its effect flags, the homœopathist at least, applying his general principle, possesses other resources. When similarity is close between drug symptoms and disease symptoms, quite small doses will probably prove effective: when similarity is not close, if there are no clear indications for another remedy, rather larger doses can be tried. During the paroxysm, the characteristics that suggest china to the homœopathist are: relatively short chill, with long-lasting

heat following ; congestion of the head with much flushed face and often delirium, and desire to throw off clothing ; profuse and debilitating sweat : no thirst during the stage of heat, but thirst just before or after the chill.

But it is needless to say that for the homœopathist all symptoms have their value—others from the pathogenesis now to be described may be present, and if they exist they strongly reinforce the claims of the drug.

The profound effects of cinchona on the body lead finally to a general condition of debility so marked that none who ever realized it as caused by the drug could thenceforward think of any “tonic” power in china except as exemplifying the general homœopathic principle. When chronic disease presents similar symptoms to those about to be described, china (in small doses or potencies) will indeed prove a “tonic.” In cases of debility lacking the characteristic symptoms it will do no good.* Poisoning by china results in a general torpor of bodily functions : venous congestion followed by passive hæmorrhages (nasal, uterine, etc.) : enlargement of spleen and liver (largely congestive) : an irritability of the neuro-muscular system with considerable muscular weakness : œdema of ankles : vasomotor disturbances, flushings and shiverings. The complexion is sallow or dingy yellow : the appetite is often voracious but digestion poor, and some of the symptoms detailed below may characterize certain tissue or body-processes.

Mentally, cinchona produces great irritability. This is worse at night and is accompanied by great sensitiveness to touch. Firm pressure, however, often relieves pain, and the objection to touch is not from local tenderness, but from nervous hyperæsthesia. The irritability is shown in a dislike of company and desire to be alone : the patient

* The practice of taking quinine at the commencement of a “cold” or of influenza can be defended if based on the belief that quinine at first stimulates leucocytes, but, seeing that its continued use paralyses them, to do more than administer one or two doses is surely unwise.

will often object to be looked at, imagining all sorts of critical feelings in those around him and resenting them. There is a disposition to consider himself ill-used, which also leads to fits of temper, but these are shallow (unlike those that characterise *nux vom.*) and generally mask a timid disposition, very sensitive to the judgment of others. There is failure of mental power and shrinking from effort.

China is very suitable to debility such as follows loss of the fluids of the body, *e.g.* after hæmorrhage, copious sweating, leucorrhœa, seminal emissions, even long-continued suppuration. It will often, in relation to this latter condition, control hectic fever. Headache is a severe and common symptom: it is throbbing, hammering, congestive, with sensitiveness to touch and relief from firm pressure, with singing in the ears and weakness of sight. Infra-orbital neuralgia is common and other neuralgias of head and face are more frequent than nerve pains elsewhere. Periodicity is a notable characteristic both of febrile attacks and of neuralgias which are likely to benefit by china: an attack every other day is a not infrequent rhythm.

The effects on sight and hearing have been already noted. In the eye, there is little obvious inflammation recorded in provings, but a general weakness of sight; photophobia and subjective sensations occur. Nerve deafness being producible by quinine is naturally a condition which suggests the curative use of it, but it needs to be used in the early stages. Ringing and humming noises in the ears are often helped by the drug. Venous epistaxis occurs in subjects for china, but otherwise the nose is little affected.

The genito-urinary sphere is the seat of the most frequent hæmorrhages (venous characteristically). Thus, menorrhagia or post-partum hæmorrhage and the effects of them are often helped by china, and the hæmaturia of quinine is notorious. Sexual power is diminished, though the general irritability may find expression in some sexual excitement.

In the respiratory tract the symptoms recorded suggest spasm of larynx or bronchi rather than inflammation; and in practice china has some reputation in asthma if periodicity and sensitiveness to touch are marked, and if bronchitis is not considerable. Palpitation and dyspnoea are common, and intercostal cramp.

The skin is generally sallow or slightly jaundiced, and very sensitive to touch. Sweating is profuse and exhausting in febrile disorders. Rashes are erythematous usually, and œdema is not uncommon. Occasionally synovitis is relieved by china when firm pressure is grateful but touch irritates.

Apart from the general effects of china, its influence is most marked on the alimentary canal. There is a bitter taste in the mouth affecting all food and drink, even water. The tongue is coated yellowish white: there is no thirst with the fever: the appetite is generally voracious, and if food is delayed there is distress. Yet even a light meal causes oppression and pain in the stomach, feeling of weight centred about the middle of the sternum, and nausea. There are sour eructations, and fermentation is great and flatulence distressing. Both stomach and bowel are distended with gas, but the passage of it relieves but little. Sometimes the appetite is capricious, and spoiled children, who clamour for dainties which they cannot digest, are often suited by china. Spleen and liver are both enlarged. A degree of jaundice is common, and the milder repeated attacks of pain in the region of the gall bladder are both caused and relieved by this remedy. The characteristic state of the bowels is a sour, frothy brown diarrhoea, worse at night and also very apt to follow the taking of food.

China has a very definite effect, in substantial doses of the tincture, in allaying the craving for alcohol (especially for spirits). This was observed by Sir T. Lauder Brunton, and homœopathists find the drug useful in the dyspepsias of spirit drinkers and sometimes even in cirrhosis. Indeed, a history of alco-

holism is enough to bring china into the front rank of remedies to be considered. Nux vomica vies with it for spirit drinkers, as does sulphur. For beer drinkers, kali bichrom. is generally more suitable in gastric disorders.

Subjects for cinchona are chilly, loving warmth and distressed by cold and damp. Autumn is a seasonal time of aggravation for them. Pains in limbs and joints are worse for rest and better for motion.

China is related botanically to ipecac. and to coffea. It is often indicated after exhausting diseases or as an intercurrent remedy during prolonged illness. For the exhausting effects of losses of bodily fluids it competes with phosphoric acid and natr. mur.

FERRUM.

Ferrum Metallicum. Triturations of the pure metal for lower potencies and for higher potencies.

There are several salts of iron available for the physician, but as far as the homœopathist is concerned, ferrum metallicum suffices for most cases when iron is indicated. Ferrum phosphoricum (phosphate of iron), though presenting resemblances to the metal, demands separate mention, and has its own important spheres of action.

Iron is an element essential to life, entering as it does into the composition of hæmoglobin. As a prime remedy for chlorosis it is largely used in medicine, and a good deal is known as to its effects. Given in excess it causes gastric pain, nausea, vomiting, and purging, and for the homœopathist, has a definite remedial power over certain gastro-enteric cases with

diarrhœa. Smaller doses if persisted in tend to cause constipation, and when chronic cases call for iron they are usually constipated. One observer (Buzdygan) quoted by Cushny maintains that the secretion of gastric HCl is increased: homœopaths on clinical grounds would be inclined to endorse this observation.

Local congestions of the upper air passages with fulness and heat in the head, and hæmorrhages from throat, nose, and lungs, are symptoms of the over-use of iron, with which the provings have made homœopaths familiar, and they are (with qualifications to be noted later) good indications for the remedial use of the metal. Dr. Cushny holds such symptoms to be either imaginary or the result of gastro-intestinal reflex action. It is at any rate difficult for those who have used the drug homœopathically, to adopt the first alternative, but it is true that there is no evidence of much direct action on heart or vessels. The central nervous system is depressed and finally paralysed. The kidney is irritated, casts and albumen appearing in the urine. It is the action of iron upon the blood constituents that is of the most direct significance when the metal is regarded as a remedy. It is said to cause leucocytosis (Pohl, quoted by Cushny*), but it is to increase red corpuscles and hæmoglobin that it is mainly used, as it is with marked effect, in simple chlorosis. Much argument has been expended and many experiments made to determine the problems of iron absorption and metabolism. Iron is taken in the food in an ordinary dietary to the extent of $\frac{1}{12}$ to $\frac{1}{6}$ of a grain per day, and about the same amount is excreted in fæces (chiefly) and urine. Since iron is excreted by the large bowel, the measurement of the amount found in the fæces throws little light on the previous adventures of the metal given by the mouth. It seems clear that it is slowly absorbed from the small intestine, stored for a time in liver, spleen, and bone marrow, then gradually removed

* Pharmacology and Therapeutics, p. 662.

from these tissues and finally excreted by cæcum and colon. Its course appears to be from duodenum to spleen, later to the liver, and finally into the blood, and gradually back to the alimentary canal (cæcum) for excretion. There is iron in the bile, but this secretion does not seem to be used as a means of disposing of any excess of the metal: whether iron be absorbed in solution or in a solid form, is as yet a doubtful point: of any ordinary dose swallowed, only a fraction is absorbed at all. That which is absorbed, however, increases both the number of the red blood cells and the hæmoglobin content of the blood in ordinary simple chlorosis. It may act by supplementing the food iron when a deficiency of this has been the cause of the chlorosis, for food iron follows the same course in absorption as does inorganic iron: in these cases to increase the food iron without adding inorganic iron, is successful. But chlorosis occurs also when food iron is not deficient, and then to increase the food iron is not a procedure that cures. Yet inorganic iron in these cases will cure, and the most reasonable explanation is Van Noorden's, that the medicinal iron is a stimulant to the blood-forming tissues, and enables them (thus stimulated) to take up again their task of elaborating hæmoglobin and making red blood corpuscles, when previously they had flagged in the performance of both functions. It has also been suggested that the *quantity* of iron given medicinally is a factor in the stimulation, for to increase food iron to the amount of several grains would involve giving more food than the body could digest. Yet if the mechanism is one of stimulation, it is at least equally likely (if not more likely) that the difference in quality of the inorganic iron as against food iron counts for something, and if this were so, large quantities might be quite unnecessary. On the whole, in ordinary practice, iron now-a-days is given in smaller doses than formerly. The drug is not curative in pernicious anæmia or in other grave blood disease, but only when the chlorosis is that caused by simple

failure of the blood-making tissues to keep pace with the body needs. Now, by the universal method of reaction of living cells to stimuli, the agent which stimulates life activity in relatively small doses, impedes or destroys it in relatively large doses. If iron is actually a stimulant to the blood-forming tissues (at any rate as regards hæmoglobin and red cell formation) then if the dosage be increased, iron will infallibly exhaust those same tissues. Consequently, if a healthy individual be submitted to excess of iron, in time the hæmoglobin and red cell formation will suffer and anæmia be produced of the exact type which iron in medicinal doses avails to cure. This fact is brought out by the provings, and it is the common experience of the homœopathist that when the general symptoms of iron are present, iron will frequently cure in potencies, which avail to give the necessary stimulus for the absorption of the food iron.* The indications that guide the homœopathist will be stated presently. When they are not present, even though the case appears one of simple chlorosis, the homœopathist seldom finds iron (in any dosage) successful, and according to his usual practice gives the drug (whatever it may be) to which the symptom-complex directs him. It is true that individuals vary in the quality of their response to drugs, some reacting well to potencies, others to more material doses. If iron appears indicated, yet fails in potency, it is good (and now and then successful) treatment to try material doses of it, but if it is not indicated by the symptoms, neither potency nor material dosage is likely to avail. Those who habitually employ material doses use either the lower triturations of the metal or of the protoxalate (by Dr. Galley Blackley's suggestion). The fine subdivision of the triturations probably facilitates absorption.

The attitude of the homœopathist to iron as a remedy for simple chlorosis is, therefore, that it can

* If food iron is in any way lacking naturally, the deficiency must be supplied

produce chlorosis of a definite type and cure cases of that type, when they occur, in potencies high or low. The general symptoms that suggest its use are great debility after even slight exertion, general sensitiveness to cold, vaso-motor instability, and tendency to hæmorrhages. The vaso-motor instability leads to local flushings: thus the cheeks are characteristically flushed, though the mucous membranes are pale. Throbbing headache, pulsation of arteries, which is sensible to the patient, throbbing neuralgic pains (especially if aggravated by cold water), swelling of the feet, and obstinate constipation, all these are common symptoms of many chlorotics, and are also symptoms that suggest iron as a remedy. The pulse is full, but the tension low: the hæmorrhages come from nasal or gastric mucous membranes or from hæmorrhoids or from (previously) diseased lungs,* or from the uterus. They tend to recurrence and they aggravate the anæmia.

The easy fatigue and breathlessness of patients who need iron is often out of proportion to their actual anæmia, and suggests a cause in a weakened nervous system. Mentally, patients who indicate the drug are very restless and irritable, changeable in mood, and impulsive.

So essential is the relation of iron to the blood that it is probable that any case that requires it will have some degree of anæmia, but there are certain symptom-groups that suggest it that have no obvious derivation from anæmia. Thus, in the alimentary canal, while the chlorotic are generally constipated, there is a peculiar irritable diarrhœa that occurs now and then, especially in young people, which meets a ready remedy in ferrum. It seems to be due to an exaggeration of the gastro-colic reflex, for its great characteristic is that it is brought on by beginning to eat. The first mouthfuls cause a call to stool. Lientery also is a ferrum symptom. Another feature is an immediate

* Ferrum aceticum in low potencies is one of the best remedies for hæmoptysis.

aggravation of all digestive symptoms from attempting to eat eggs. Gastralgia, hæmatemesis (suggesting gastrostaxis rather than gastric ulcer), periodic vomiting (especially about midnight), and pressure in the stomach are other symptoms.

In the genito-urinary sphere, the menorrhagia has been already mentioned : miscarriage has been caused by iron, and it seems to affect sexual power adversely. There is a peculiar irritability of the bladder comparable to that of the bowel which causes diarrhœa : it leads to incontinence of urine, for there is also a weakness of the sphincter and the irritable sudden contraction of the bladder easily overcomes the guarding muscle. Another form of the symptom is a spurting of urine in women on coughing (ferr. phos. and cf. causticum), and the incontinence is more common in women than in men. It is noteworthy that it is more marked by day than by night, the spasm being largely reflex and the erect position being an unfavourable one for the patient. Cramps of all kinds are common in the pathogenesis of iron. The irritability of the mind, in fact, as with arsen. and china, is accompanied with an irritability of the body : ferrum antidotes both china and arsenicum, so that the arseniate of iron is not a very useful preparation.

Ferrum phosphoricum is the only iron preparation that is often indicated in respiratory diseases, except for the use of ferr. acet. already alluded to for hæmoptysis. But occasionally asthma is helped by iron when the general symptoms agree, and especially if there is relief from moving about.

Iron develops in its provings very definite pains both aching and more acute, especially in the region of the shoulder joint and deltoid muscle, and has proved a good remedy when the pains are relieved by moving about slowly. Sudden movement or exertion aggravates symptoms. The left side seems more readily affected than the right.

The principal time of acute aggravation when ferrum is called for is about midnight, but for many

symptoms (*e.g.*, joint pains, enuresis, &c.) the day is a time of greater suffering than the night. The subjects suitable to it are chilly, and worse in winter, but also resent extremes of heat. This is another expression of the temperamental and bodily irritability. When the general symptoms suggested it, Dr. R. T. Cooper found iron very useful in chronic deafness.

GELSEMIUM.

Gelsemium Sempervirens. Tincture of the Bark
of the Root.

Gelsemium owes its place in the *Materia Medica* chiefly to the work of Dr. Hale. It is not unknown to non-homœopathic medicine (mainly to relieve symptoms of headache and pain, and for these a good deal of "similarity" can be claimed), but there are apt to be great variations in susceptibility to its action, and the ordinary doses of the "orthodox" are not unaccompanied by danger to the patient. Consequently it has no wide popularity.

Gelsemium (or at least its alkaloid, gelsemine) has a certain relationship to strychnine, but it does not seem a very close one, and homœopathic provings at least give little warrant to the claim of close resemblances between gelsemium and *nux vomica*. Its effects on tissue as a poison point to the much closer likeness of it to conium, and this statement homœopathic research tends to confirm, though there are differences in the two symptom-pictures easily recognized in practice. Like coniine (the alkaloid of conium), gelsemium appears mainly to paralyse motor nerves peripherally, though an action is probable at least on the respiratory medullary centre, and seems to account for death after excessive doses. The sympathetic ganglia are also paralysed.

The provings and homœopathic experience in the use of gelsemium give a definite symptom-complex

of which the keynote is paralysis. There is a stage of irritation shown in itchings and spasms, but paralysis sets in early and some degree at least of paresis is characteristic of any case that strongly suggests gelsemium ; while spasm is the predominating element in the *nux vomica* picture, paralysis is conspicuous in that of gelsemium. It is a paralysis less central than peripheral, and therefore the drug is very suitable for instance, to post-diphtheritic paralysis. But while its effect on neuro-muscular action is due to a gross poisoning of tissue the paresis is much enhanced by the effect of the drug in the mental sphere. Here, too, it may be said to paralyse ; the mind is sluggish, and lassitude, mental as well as bodily, is pronounced ; the underlying condition of the sluggishness is not so much a stupor of indifference (as with *baptisia*), but a neurotic "hysterical" mental state which is none the less real for being but dimly expressed. Thus the mental state exaggerates the physical, the patient is so sure of the gravity of his condition that he tends to worsen all the appearances of it: For this reason the drug is particularly well indicated homœopathically in neurotic excitable subjects and for conditions aggravated by mental causes. Thus a lassitude and prostration that set in after the effects of anger or grief, or bad news, of the kind of fear that often precedes an examination or of "stage fright," find a frequent remedy in gelsemium. It is noteworthy that alcohol seems to relieve such symptoms as call for gelsemium and that not only temporarily. Alcohol is seldom of lasting benefit in real and important illnesses, however valuable occasionally as a temporary measure, and the relief it gives to those cases is largely the result of the "suggestive" power of it and of its immediate effects on the mind—and this in spite of the fact that some provers of gelsemium have experienced symptoms very like those of alcoholic intoxication. Thus, given a state of lassitude and paresis, mental and bodily, as a result of acute or sub-acute disease, or of some emotional assault on the nerves, gelsemium is invaluable. Actual para-

lyses are common; ptosis frequently appears or diplopia, partial œsophageal or anal paralysis, or paralysis of the tongue may be noted, or all the limbs may be moved with difficulty. The pupils are widely dilated. But gelsemium is also indicated by the irritation of nerve tissue that shows in general tremor, a condition precedent to paresis. Quivering of eyelids or tongue, or of groups of muscles, indicate it. When nerve symptoms (convulsions with lassitude supervening) are prominent in measles or scarlet fever, gelsemium may be most useful.

Headache is a very common symptom; often it begins with blurring of the sight and is relieved after copious urination, or it (and other neurotic symptoms) may be the result of masturbation or follow seminal emissions, especially when any "sexual" experiences are brooded over, or foolishly and ignorantly considered. The headache is often felt first in the occiput or lower, then on the vertex, and may culminate over one eye (usually the right); with it go vertigo, faintness, drowsiness, and a sense of throbbing. Such headaches often occur with influenza, for which gelsemium is a remedy frequently indicated.

There are two curious effects of the drug on the nervous system which have been observed. First, a strong desire for expression in speech and writing, with a sense of increased power, especially of memory. This may be regarded as the stage of stimulation preceding the characteristic lassitude. The other "odd" symptom is a "desire to throw herself from a height," which was experienced quite definitely by two independent (female) provers. This goes with the excitable neurotic condition which so often suggests a patient suitable for the action of the drug.

There is a very definite coryza caused by gelsemium, with sneezing in the early morning and a profuse, rather watery discharge. It helps hay fever in neurotic subjects, and when influenza is accompanied with nasal catarrh, gelsemium is generally to be preferred to baptisia. The choice between the two (which between them cover about 70 per cent.

or 80 per cent. of ordinary influenza cases) rests on the nervous symptoms, on the abdominal, and on those of the upper respiratory tract. Both cover the ordinary type of fever, both show marked pains in the back and limbs (baptisia more aching, gelsemium more acute), both cause severe headaches. gelsemium shows the coryza more and baptisia the gastro-intestinal symptoms. With gelsemium there is greater tendency to tremor or to paralysis. With baptisia the weakness is rather weariness than actual loss of power: both are suited to drowsy patients, but the baptisia symptoms are the more profound in this respect and the consciousness more clouded; gelsemium belongs more to the neurotic and highly-strung. On the whole, the baptisia patient seems the graver case to the physician and the gelsemium patient to the sufferer and his friends, for the characteristic neurotic temperament causes some exaggeration of feeling and of expression.

In enteric or typhoid it will be but seldom that gelsemium is to be preferred to baptisia, arsenicum, or bryonia, but occasionally a sensitive neurotic patient obtains great relief from it. Tremor or paralysis of the tongue is a suggestive symptom for its use.

As is usual with remedies that affect the neurotic particularly, there is evidence that the sexual glands do not escape the influence of the drug. But it is useful rather for subjective symptoms than for objective ones. Thus dysmenorrhœa (with headaches or neuralgias) in highly-strung subjects often benefits exceedingly wherever the pain happens most to be felt. In the male it has a value for symptoms of pain referred to the sexual organs, especially when the starting point of them is over much brooding on some excess or sexual misconduct.

All kinds of symptoms of peripheral nerves will benefit from it in suitable cases. It produces neuritis and will help recent cases (*e.g.* diphtheritic), but sensory nerves come well into its sphere of action also and will respond favourably to it. Professional

neuroses (*e.g.* writers' cramp) are particularly likely to suggest the use of gelsemium.

Motion aggravates most symptoms, and the patient's desire is to lie down and rest. But as an exception to this rule, there is a neurotic heart condition that suggests the remedy when the patient feels as though if he did not move about the heart would stop. Excess of tobacco may cause conditions of this kind, and nervous symptoms generally, in heavy smokers often find help from gelsemium.

The symptoms are made worse by heat of rooms or sun, especially when thunder is approaching, but local heat often relieves the headache or dysmenorrhœa. Damp weather is harmful to the cases that need the drug, and stimulants generally relieve them.

IGNATIA.

*Ignatia Amara. Tincture of Seeds of
St. Ignatius Bean.*

The seeds of ignatia contain even more strychnine than those of *nux vomica*, and the presence of this alkaloid in quantity naturally implies a considerable resemblance between the two drugs. But the provings nevertheless develop noteworthy differences and the two are by no means interchangeable. Thus again is illustrated the phenomenon so familiar to homœopathists that the effects of the most striking and poisonous of active principles in a medicine are greatly modified by the presence of other substances which seem at first almost negligible. The symptoms produced by tincture of ignatia differ notably from those caused by tincture of *nux vomica*, and both complexes again differ from that which ensues on the administration of strychnine.

The mental symptoms of ignatia are outstanding and important. The drug is seldom indicated unless the mental condition corresponds as between that produced by disease and that caused by drug proving—and when the mental symptoms are strongly marked many diverse diseases may be benefited. The great mental characteristic of ignatia is rapid alternation of moods, recalling in this respect *pulsatilla* and *crocus*. There is little or none of the anger and irritable violence that suggests *nuxvomica*, although the patient is not quite so soft and pliable as when *pulsatilla* is required. Gaiety alternates rapidly with melancholy, which is notably tearful, but there is this feature that helps to distinguish the need for ignatia from that for *pulsatilla*, that the latter is more likely to show a kind of self-pity, little concerned with the sufferings of others; while the emotional state that calls for ignatia, however unbalanced, is less selfish: there may even be some attempt to conceal grief, and while symptoms often take rise in sorrow from actual loss of friends or other mental suffering, they may also come from sympathy with the troubles of others. The effects of grief in general on sensitive natures are very likely to suggest ignatia, and there is no single remedy so likely to be of value for the symptoms arising from recent sorrow. Under its influence patients sleep better, wake more calm in spirit and with more courage and endurance. The effects of mental anxiety or of worry, no less than those of grief, may give rise to a condition which ignatia can help: but although there is so much melancholy and depression in the drug pathogenesis, it must be remembered that violent hilarity with uncontrollable laughter from slight causes may alternate with the mood of sadness. Changes take place without any warning and swiftly: thus the picture of unbalanced, exaggerated emotional states is completed and the resemblance of the drug pathogenesis to some hysterical conditions is manifest. But anger and violence are seldom if ever prominent among the symptoms:

there is often love of solitude but no resentment at attempts at consolation, as with *sepia* or *nat. mur.*

Not only the mental but all physical symptoms change character swiftly and unexpectedly; changefulness is nearly as marked in the effects of this drug as in those of *pulsatilla*. Suddenness, especially a sudden and unlooked-for loss of function, make it again suitable for the hysterical. Also there is a kind of perversity sometimes about the conditions that can be caused and cured by *ignatia*. A sore throat, for instance, will be actually relieved by swallowing, and in malaria the thirst will be marked *only* in the stage of chill. *Ignatia* has won many laurels in the treatment of malaria in America when this symptom has been present, though its mode of action here is quite obscure.

It is not wonderful in view of the presence of strychnine in the drug that the *ignatia* complex should show many spasmodic symptoms. A spasm of the œsophagus occurs which exactly parallels the *globus hystericus*, the sense of a lump in the throat which rises from the stomach, and if swallowed down, constantly returns. This symptom is made worse by drinking water. Twitches and spasms of muscles (marked often in the facial muscles) are common. Hiccough and hysterical vomiting occur, and very painful spasm of the anus; convulsions and spasms from physical causes (fright, fear, etc.) are noteworthy. *Ignatia* affects the female generative organs considerably (see below), and therefore is indicated in puerperal convulsions when the mental condition corresponds to that producible by the drug. *Laryngismus stridulus* is another affection that often suggests it. On the other hand, it will often succeed in hysterical aphonia. It affects sensory as well as motor nerves, and is often a remedy for painful conditions. Characteristically the pain is concentrated in small spots, there is a headache that is met by *ignatia*, described as though a nail were being driven into the head. The fact that the headache often vanishes after copious urination suggests some acute

toxæmia. Pains are apt to change their locality suddenly, and also are badly endured, so that they seem severe.

Ignatia, like *nux vomica*, is one of the remedies suited to persons who feel the cold very much, whose complaints are made worse by cold weather, and are worse out of doors, while relieved by heat of sun, or fire, or clothing. Rest relieves symptoms of pain, and movement worsens them. Hard pressure also relieves many pains, but the hypersensitiveness often makes light touch irritating. Cramps and spasms are excited or aggravated by touch. Any strong sensory stimuli are apt to worsen symptoms. Coffee and alcohol disagree with the patient, and mental excitement or strong emotion is the cause of many symptoms of distress. There is a great aversion from tobacco which is noteworthy in the pathogenesis.

Turning now to the effects of the drug upon particular regions, it is to be noted that not only do the eyes react subjectively with the photophobia and symptoms of flashes and flickerings of light, but that where these symptoms are accompanied with conjunctivitis and lachrymation and inflammation of the edges of the lids, *ignatia* will cure the objective signs as well as the subjective.

The appearance is characteristically pale and wan and drawn. Twitches of the facial muscles are common. The throat feels sore and may present an appearance of redness, though not of deeper inflammation or ulceration. Swallowing is very difficult from tendency to choke (spasm, *globus hystericus*), but the actual soreness of the pharynx is often relieved by the act of deglutition, showing it to be much more a nervous than an inflammatory symptom.

The appetite is capricious: alcohol, coffee, meat are often disliked, and cold food is, as a rule, preferred to hot—an exception to the general rule for this remedy of preference for heat over cold (cf. *phos.*). There is often a craving for sour things. Sensations

of weakness and emptiness in the stomach are marked; the surface is very sensitive to touch and to pressure, which relieves neuralgic pains generally with this drug and aggravates the cramps and colic that occur. Hiccough and nausea, even vomiting, may be prominent, and much flatulence is complained of. All these symptoms are made worse by tobacco smoke, may be relieved for a time after eating, and are markedly influenced by nervous and emotional causes. There is no evidence that ignatia affects the processes of digestion deeply as far as regards gland secretions and the condition of mucous membranes. The disturbances characteristic of it are mainly neuro-muscular in origin. Usually there is constipation with a hard, large stool. Tenesmus and sharp pains in the rectum are noteworthy symptoms.

In the genito-urinary sphere the copious urination (of clear and pale fluid) that often relieves the headaches should be noted. The male genital organs are little affected, though the drug is often suitable for the nervous results of sexual excesses. In women there is a characteristic dysmenorrhœa, for which ignatia is very valuable, if the mental type of the patient approximates to that of the drug. Its characters are very severe cramping, labour-like pains, relieved by rest and by hard pressure, and the flow is excessive, clotted, and venous. All the physical signs, in fact, are those of uterine spasm.

The respiratory organs and the heart are again affected as regards their nerve supply rather than their structure. Palpitation and throbbing and precordial anxiety brought on by grief or emotion will often yield to ignatia. There is little coryza or bronchial catarrh, but a dry, hacking, spasmodic cough, when the paroxysm gets worse and worse up to a climax, with tickling referred to low down behind the sternum. Such a cough will often respond to ignatia, either when physical signs are few or none, or when the cough is the result of the irritation of disease—though in this latter case the drug

will be a palliative only. It should not be forgotten in whooping cough.

The limbs show many symptoms of pain : violent and sudden neuralgias with cramps and spasms of muscles. Particularly sciatica is to be noted when every movement causes pain, when startings in the muscles are common, and sense of weakness in the whole limb. Heat relieves, and hard pressure and rest ; usually some of the mental symptoms will be present to suggest the remedy, and if these appear, spasmodic affections, like chorea, hysteria, and even recent epilepsy, will benefit from it. As with nux vom., there is a tendency to violent itching of the skin. Sleep is generally profound, but dreams may be troublesome. In febrile conditions the odd symptom has already been noted that there is little or no thirst except during the rigor (malaria). Coffee and tobacco are inimical to the action of ignatia.

IPECACUANHA.

Cephaëlis Ipecacuanha. Tincture and trituration of the dried Root.

This is a well-known remedy, and its most salient characteristic of producing nausea and vomiting is familiar. This symptom is nearly always present in greater or less degree when ipecacuanha is likely to be useful, but it has certain qualities which enable the homœopathist to distinguish the nausea it causes and cures, from that of other drugs. The distinguishing quality is the *persistence* of the nausea : there may be a constant desire to vomit, while vomiting, nevertheless, does not take place : or if the nausea ends in vomiting, it is not thereby relieved, even for a short time. The nausea and vomiting are due to the local effect of the drug on the gastric mucous membrane, and the medullary centre is unaffected

Consequently, from the homœopathic point of view, its value is proportionate to the local causation of its characteristic symptoms. There is a profuse secretion of saliva, but the tongue is not markedly coated, and may even be clean. This is at once a distinction between the effects of ipecacuanha and antim. tart.* This nausea characteristic of ipecacuanha is naturally often associated with disorders of the alimentary canal, but occurs also with respiratory diseases and in febrile complaints (*e.g.* malaria). Whenever it is present the drug should at once be thought of, and confirmatory symptoms looked for. With the nausea not unnaturally goes a disgust for food, and it is noteworthy that the starting point of the milder conditions that call for ipecac. is often indulgence in rich food, pork, pastry, ice cream, etc. The patient often complains that the stomach feels as if it were "hanging relaxed."

This emetic quality of the drug has always to be reckoned with, and colours the whole symptom-picture. The condition of the alimentary canal is largely due to an inflammation of the mucous membrane which lines it, and nausea and vomiting are followed or accompanied by frequent loose stools, generally greenish or yellow (the bile secretion seems to be increased), and containing much mucus and generally blood. Characteristically the hæmorrhages of ipecac. are of bright arterial blood, and the power to cause hæmorrhage is one of its noteworthy symptoms. The respiratory and the female genital tracts show it as well as the alimentary. The stools, in fact, that ipecac. in poisonous doses produces can justly be called dysenteric, and consequently the long-standing use of the drug as a cure for amœbic dysentery is of great interest to the homœopathist. Of late years the alkaloid of ipecac.,† emetin, has been used with great success for amœbic dysentery, but its use has been accompanied by warnings from sources un-

* The vomit may contain bright arterial blood.

† The active principle of ipecac. is actually made up of three distinct alkaloids—cephaeline, emetine, and psychotine.

touched by any interest in homœopathy, that care is needed to avoid over-dosing because the symptoms of emetin excess resemble so closely those of the disease that a patient may be gravely poisoned under the impression that his disease is specially refractory.

The orthodox explanation of the unquestionable curative power of emetin (and ipecac.) in amœbic dysentery and its sequel, hepatic abscess, is that the drug has a specific parasitocidal power exerted on the *entamoeba histolytica*. It must be pointed out that the quantity of the drug that reaches the parasites must be uncommonly small at the best. The dose is injected subcutaneously, and is presumed to reach the parasites in the process of being excreted. Its power in large doses to cause gastro-enteritis, however introduced into the body, is certain, and therefore there is little doubt that, given medicinally, it finds its way to the affected places. But the homœopathist may be pardoned, perhaps, if he speculates whether the curative effect be not reached by arousing a reaction in the mucous membrane rather than by directly killing the parasite. Surely this explanation would render more explicable the danger of over dosing, for if the first and foremost effect of the drug be on the tissues, then it is clearly easy to poison them instead of merely stimulating them, but if its primary action be on the parasites, then a little too much ought not to be very harmful, as only the excess over and above whatever is taken up by the amœbæ will be available for the mucous membrane. The homœopathist, it is needless to say, welcomes the emetin treatment, and will welcome it even if its pure parasitocidal action be finally established, for it is undeniably effective; but he retains at present his doubt whether there is not here another instance of the use of a "similar" drug, and while he inclines to the view that it acts on tissue rather than on parasite, he is not likely to overdose his patients. It should be added that (presuming that the drug acts indirectly) the evidence points to a local tissue action rather than to a stimulus being given to any kind of general

blood resistance such as so often combats bacilli : this consideration again would incline the homœopathist to the use of lower potencies. It is quite possible that triturations of emetin would be effective by the mouth, but more clinical experience is required here.

Before leaving the subject of the orthodox uses of emetin, it may be noted that the drug has been considerably praised recently for controlling hæmorrhages (not only intestinal, but respiratory and other) in cases where there is no question of the entamœba, and therefore no question either of a parasitocidal action. The homœopathist may fairly point out that he has known for a century that ipecac. will control hæmorrhage of a definite type, and that this "discovery," therefore, is no novelty to him, but is difficult to explain save as an instance of his basic generalisation.

The central feature of the ipecac. symptom-complex is this instant action on the alimentary canal. Non-homœopathic observers regard the increased bronchial secretion which it produces as reflex, an effect of the gastric irritation and not the result of direct action upon the tissue of the bronchi (œdema of the lungs has been noted in animal poisonings). This is a point of considerable interest. Provings develop many symptoms of bronchial catarrh. The characteristic cough is dry, spasmodic, asthmatic : there may be dyspnœa with wheezing : or at a later stage there may be accumulations of mucus and inability to get rid of it. The most intense paroxysms of asthma have been produced when susceptible subjects are exposed to the drug in the course of preparing it for medicinal purposes. Both epistaxis and hæmoptysis are common. The drug is most often indicated to the homœopathist in bronchitis and asthma among respiratory diseases, and frequently appears to act satisfactorily in potencies. On the other hand, it is true that unless there is some degree of gastro-intestinal disturbance and the characteristic nausea, the prescription of the drug is seldom success-

ful. It is a very familiar experience that patients who suffer from one or other of the metabolic disorders which are named "gout" or "gouty," are subject to asthma and bronchitis, and their frequent high arterial tension often results in hæmorrhages. The starting point of their disorder is usually the alimentary canal and accessory glands. If, then, the main action of ipecac. is upon this region, it might, by causing improvement there, influence favourably the secondary symptoms, and it may well be that it is in respiratory complaints of this kind that it succeeds.

The principle of prescribing on the *total* symptom-complex is thus justified once more: the bronchitis may appear the most urgent call for assistance, but the accompanying persistent nausea may be the symptom that points conclusively to the ipecac., which will act indirectly through the alimentary canal. However, though orthodox research inclines to the view that ipecac. acts almost exclusively on the gastro-intestinal tract, it must be remembered that the repeated small doses of the provers are a better road to the development of the refinements of drug action. Therefore, homœopathists may be justified in believing that other tissues than those of the alimentary canal are susceptible to ipecac., and that it is an error to explain all its other effects as reflexes from the main site of action, or only brought about by local irritation. Thus, there is no doubt that ipecac. is intensely irritating locally to the conjunctiva and to the skin; applied to the latter it may cause a pustular eruption, yet when taken internally no such symptoms are readily seen, nor is conjunctivitis a sequel of a large dose. But although no prover developed a pustular eruption, intense irritation of the skin, with uncontrollable desire to scratch it, does appear, and has proved a guiding symptom to the successful use of the drug. Similarly, conjunctivitis, with intense photophobia, lachrymation and neuralgic pain, has appeared in the pathogenesis, and the drug helps recent inflammation of this character considerably.

In the genito-urinary sphere its chief use is for uterine hæmorrhages. It controls best those that come as a steady flow of bright arterial blood, and nausea with the hæmorrhage is a determining symptom. The menses are too early as well as too profuse, and the hæmorrhage of threatened abortion, if presenting the characteristics of ipecac., will yield to it. Thick leucorrhœa has been reported as a symptom, and vaginal irritation.

Throughout the ipecac. complex there are a good many symptoms of pain, generally dull, bruised pains, headaches and neuralgias, and such as cause or are accompanied by nausea. They are best read as the concomitants of alimentary toxæmias, and are relieved most likely by the influence of the drug upon the alimentary tract.

In considering most remedies, the mental symptoms rank high in importance. But with ipecac. they, too, seem to depend upon the gastric effects of the drug. They are just such as would be expected from the intense irritation and discomfort of the abdominal region. Patients show a morose irritability, the face is pale and drawn and the eyes hollowed, with dark circles round them: children cry and scream readily, and (as with bryonia subjects) have desires which they cannot properly express—vague, indefinite longings.

The joints are not much, if at all, affected.

The good subjects for ipecac. are sensitive (as are those who are suited to mercury) to every change in the weather, so that any extreme both of heat and of cold aggravates their symptoms.

Finally, ipecac. in its symptom-complex shows a marked periodicity. Botanically, it is related to cinchona, and it may be that this may have a bearing upon its usefulness in intermittent fever. Whatever the mode of action, homœopaths have found it of great value in obstinate malarial cases, especially when nausea is persistently present. when bone pains are marked and distressing, and when the stages of an attack are not regularly defined, but chill and heat

vary much in length and severity from one paroxysm to another. Such cases are not uncommon when much quinine has been administered without care, and there may be truth in Dr. J. H. Clarke's suggestion that ipecac. is antidotal to quinine, and owes some at least of its virtue in these cases to that fact. Be that as it may, the rule of Jahr to use ipecac. for intermittent fever if no other remedy were clearly indicated, is a sound one. If it does not itself cure, it often clears the symptom-complex to a recognisable type, and thus points the way to the remedy required. The characteristic ipecac. nausea is a good broad hint whenever present, that the drug is indicated.

Ipecac. does not go well with arsenicum, and this fact must be remembered in treating respiratory diseases. On the whole, probably, most success attends the use of the lower potencies.

KALI CARBONICUM.

Carbonate of Potassium. Solutions and Triturations.

Sodium, as an element, belongs characteristically to body fluids, while potassium is associated with body cells. Both elements are absolutely essential to life. Of the sodium salts, the chloride (natrum mur.) is to homœopathists the most useful remedially, and of the potassium salts, the carbonate now under discussion and the hydrate (causticum). To the non-homœopathist it must seem at first almost absurd to expect remedial virtue from either chloride of sodium or carbonate of potassium, since relatively large quantities of them both have so little obvious effect on the body. But as with nat. mur., so with kali carb., the process of potentisation develops unexpected powers, and no homœopathist would willingly dispense with either in treating chronic

diseases. Each, rightly chosen, is an agent of extraordinary efficacy.

The effects of kali carb. depend for the homœopathist mainly on the potassium it contains. Potassium is well known to physiologists as a poison acting chiefly on the central nervous system and the heart. Muscular weakness sets in early, and general sluggishness and apathy. Cushny quotes Mathison as maintaining that spinal centres are first stimulated and then paralysed as the dosage increases, an instance of the familiar rule of Arndt with regard to stimuli. Respiration is difficult and quickened. The heart swiftly responds to the poison, its power is lessened, the beats become weak and irregular, and the pulse rate is usually lowered. Heart block and ventricular fibrillation may appear. It seems that the main action of the drug is on the cardiac muscle. Peripheral nerves lose irritability under the influence of potassium and other muscles than that of the heart are weakened by it. Potassium salts taken into the alimentary canal pass very rapidly into the urine, so that the poisonous effects of the metal are not observed even after large doses of most compounds of it: but homœopathists have grounds clinically for their belief that the potentised drug has a much more profound effect, principally upon the regions mentioned above, and also in other more detailed ways to which the provings give the clue.

To the non-homœopathist, the non-metallic ion in both hydrates and carbonates is more powerful than the metal, but the alkalinity which is the source of the power has little influence in potencies, and shows its effects only when acting in some quantity. The hydroxyl (OH) ion is then very poisonous. The therapeutics of alkalies as such do not much concern the homœopathist. They are given to reduce gastric acidity (it is no longer believed that small quantities of them increase it), and improve the gastric circulation: prolonged administration of them has caused gastro-enteritis. It has also been shown that their supposed direct effect on the bile is illusory, and that

any that seems to appear follows the action on the duodenum. Even after large doses of alkalies the alkalinity of the blood is not increased to litmus, but for a short time there is more alkali in the system available for the neutralization of any excess of acid, and this may be the explanation of the success of very large doses of carbonate of soda, for instance, in some cases of persistent vomiting from acidosis (pregnancy, etc.).

Homœopathic experience results in giving kali carb. a high place among remedies for deep-seated chronic diseases. It will often relieve acute conditions, but best when these are manifestations of some underlying disorder (*e.g.* tuberculosis). It is valued most by those who use high potencies and infrequent doses, but Professor Schulz, whose provings of the drug confirm those of avowed homœopathists in broad outline and in many details (though less elaborately worked out), finds valuable employment for the remedy in solutions of the strength of 1 per cent.

The symptomatology of kali carb. is particularly clear in regard to involvement of fibrous tissues. Thus, ligaments and structures in the neighbourhood of joints are much affected, and in the direction of loss of elasticity and power. In this way characteristic signs appear of slackness, weakness, strengthlessness : there is a chronic, weary aching of the back, a general sagging of tissues, a tendency to give way physically. The muscles are weak or even partly paralysed, the joints are painful and tired, and there is a general lack of energy to keep the bodily machine going.

These physical signs correspond to and are enhanced by the mental condition. Not only is the body slack, but the mind also : there is an enfeebled reaction to the circumstances of life, an inability to stand up courageously to the needs of the hour, a general failure of will, and a tendency to throw individual burdens on to anyone who will undertake them, to disclaim responsibility and let events take

their course. No one could be less the "captain of his soul" than the typical candidate for kali carb. This condition may be reached as the result of chronic illness, overwork, sexual excess ; but usually when kali carb. is indicated there is in the patient a root of feebleness, a "defeatism" of the soul that readily exaggerates genuine symptoms into intolerable burdens and makes a great ado about comparatively little suffering. It is often necessary to choose between sepia and kali carb., but there is usually about the patient who requires sepia, however broken-down and feeble, a fibre of endurance, a remnant of strength that finds expression in resentment and ill temper, if in no other way. The temper when kali carb. comes in question is rather peevish than angry, irascible rather than passionate, timid and fearful, with apprehensions that have little reason for existing. Fear is a very prominent symptom indeed. The mind is weak like the body : mental effort is shunned and is badly performed : the memory is weak. But there is a good deal of sensitiveness : slight external stimuli are regarded as severe : the patients often resent being touched, especially unexpectedly.

The circulation is feeble, blood pressure usually low, and pulse poor—it may be intermittent. The drug finds its chief sphere in affections of the heart muscle rather than in valvular disease, for it affects heart muscles as well as skeletal ones. One result of this feeble circulation is a general chilliness. The patients who need k. carb. feel the cold, are worse for cold air (cold winds) or cold applications, and gratified by warmth of sun or fire. They catch cold readily : catarrhs are prominent among k. carb. local symptoms, for the general powers of resistance to germs are low.

With the feeble circulation and low tension goes some vaso-motor instability. Localities readily become congested. There is a characteristic headache with congestion, generally one-sided (right side), affecting forehead and temple, and often ending in vomiting. The pain is severe and shooting, and

regarded by the patient as nearly unbearable. All the pain and discomfort symptoms of kali carb. are made worse by the act of eating. Backache or headache, or general tiredness and weariness, sharp pains or dull chronic pains—all are felt more during the actual time of taking food and for a short while after. The sense of fatigue may be so increased as to lead to a drowsiness almost irresistible. The characteristic sign is that it should come at once on beginning to eat, as though the mere efforts of mastication and deglutition, and the early secretion of digestive juices, put an extra strain on the system which it resents. Interestingly enough, the effects of carbonate of soda are exactly opposite. With this drug there is, for a time, marked relief from eating.

The pains (especially the backache) are often made worse by firm pressure. In spite of the disinclination of the patient to make any exertion, to move about sometimes relieves the pains, and the daytime is usually more endurable than the night. During the day there are things to be done that distract the invalid slightly from the thought of his pains, and possibly long-suffering friends and relatives to be grumbled at and complained to, and there is no doubt that these complaints and grumblings give a certain (unacknowledged) relief. But at night these resources are unavailable: night brings vague fears to these timid souls, and, with no distractions, the pains seem to become worse. In this way relief from movement and worsening from rest both come into the pathogenesis, but they need to be interpreted in the sense given above. There is one very characteristic time of symptom-aggravation for kali carb., and that is between 2 a.m. and 4 a.m. That is the time when, after more or less sleep, the patient wakes, feeling all pains and discomforts worse, and to elicit this particular symptom is to obtain a strong hint for the use of the remedy.

K. carb. affects the respiratory organs prominently (see below), and an asthma that habitually chooses

those hours for its paroxysms will often yield to this drug.

There are no marked skin symptoms, but the sweat glands are readily stimulated. Sweating, backache, weariness form a triad of characteristic symptoms (Farrington). Not only the back, but many other joints may be chronically affected with pain and inability to perform their duties well. Large joints rather than small are attacked, and the outer fibrous tissues rather than the synovial membranes. The right-sidedness of kali carb. is definitely marked, and appears in joint and neuralgic affections. The nerve pains are due, at least partly, to affections of the nerve sheaths. Pains are described as sharp and lancinating as well as aching. The region between the right hip and right knee on the outer side of the thigh is a particularly characteristic place for pain, and the existence of pain there has often been the clue to the successful use of kali carb. All these pains are made worse by lying on the affected side, and are felt more when the patient is at rest. Potassium in the last resort is a great paralyser (cf. causticum), and the muscle weakness is partly due to a failure of nerve power. The tissues of the skin lose their elasticity: relaxation of tissues is a general symptom of kali carb., but it is often most readily seen in a sagging of the tissues between the eyebrows and upper eyelids, giving a kind of puffy appearance which is not œdema. Patients suited to this remedy are often fat, for combustion proceeds ineffectively with them, and metabolism is apt to be incomplete.

Kali carb. is often of great value in the chronic pelvic disorders of women. Schulz reports that in parts of Germany it is taken as an abortifacient. Its profound effect upon fibrous and muscular tissues makes it, in homœopathic experience, appropriate to illnesses the result of difficult or repeated parturition, subinvolution, prolapse, with all their accompanying symptoms of backache, weariness, and depression. The periods are usually excessive (with

sepia usually scanty), and a profuse leucorrhœa of mucus and pus is a common symptom. All kinds of aches and pains from head to foot are apt to be associated with these conditions. Sexual intercourse aggravates all symptoms, both in the male and female. In the male, the drug is often useful for the nervous effects of sexual excesses. In both sexes pelvic diseases that call for kali carb. are often accompanied by that pain between right hip and knee that has been already mentioned as characteristic.

The alimentary canal symptoms are those of chronic rather than of acute disease. They suggest an impaired efficiency of the digestive factors in metabolism, which both reacts unfavourably on the nervous system and is unfavourably influenced by it, so making up the too familiar "vicious circle" of neurasthenia. The face looks haggard, slack, and puffy and the cheeks flush easily: the teeth and gums are sore and pyorrhœa is common. The tongue often feels swollen, and vesicles on it are sometimes seen. It is not as a rule heavily coated. Post-nasal mucus is freely secreted, so that there is a disposition to hawk and clear the throat: the presence of this seems sometimes to impede deglutition. There is often a strong desire for sweet or sour things and a capricious appetite, which may be excessive. After eating, frequent and sour eructation, nausea which produces faintness, epigastric sinking, and ill-defined abdominal pains and discomfort. Flatulence in the bowels is considerable and constipation is the rule. Mucus is freely secreted from the rectum. The stool is expelled with difficulty and pains in rectum and anus are usual.

In the respiratory sphere, the tendency to profuse catarrh of the nose has been mentioned. The secretion is purulent, and after cleansing, the nose for a time often feels dry and uncomfortable. Hoarseness, aphonia and a dry, tickling cough, especially at night (3 to 4 a.m.) indicate laryngeal and tracheal irritation. Lower in the tract the drug causes more

free secretion, and muco-pus, expelled after spasmodic attacks of coughing, is characteristic. The secretion is apt to come away suddenly after two or three ineffectual coughs. Whooping cough now and then suggests the drug. Stitching pains in the chest (especially on the right side), worse on inspiration, are common. Pleural adhesions are often found, and the drug since the days of Hahnemann has been found to have a special value for tuberculous cases where the tuberculosis shows first after pneumonia or pleurisy, or is accompanied by formation of fibrous tissue, while the disease smoulders on in spite of these efforts to heal. Spasmodic asthma, emphysema, and bronchiectasis are all conditions that may make up a symptom-picture that suggests kali carb. The early morning aggravation has a great value as an indication in these cases.

On the whole, this drug is most often called for in persons past the prime of life, who have come badly out of the struggle, either through disease or overstrain, or through deficient powers of will and mental energy. The subjects for it are often fat, suggest slackness and nervelessness, and belong to the class of patients who between their genuine sufferings and their imaginary burdens are difficult to handle or to relieve.

The drug has a close relationship to arsenicum, the carbons and sepia, and is not inimical to any important drug.

LACHESIS.

*The poison of the South-American serpent,
Trigonocephalus Lachesis.*

The lance-headed viper whose poison glands supply this drug is one of the most feared, being one of the most deadly, of the serpents. Constantine Hering first (and principally) proved the poison, and knowledge of its effects on provers are supplemented by

knowledge of the effects of the actual bite of the snake. Clinical use for some ninety years has again defined the outline of the symptom-complex and added features to it, and the indications for the prescription of this most valuable remedy are to-day recognised with little difficulty.

The serpent poisons resemble one another in their action on the body: they kill by their effect on the nervous mechanism of the heart, and their power here can be used medicinally in treating disease. But if death is delayed or avoided through smallness of dose other effects appear. There is a local action on the blood, leading to lowered coagulability and destruction of red blood corpuscles, with extravasations of blood under the skin. These two marked effects on the heart and on the blood are both shown by all the serpent poisons used homœopathically, but the degrees of them vary with different venoms. Thus *naja*, the cobra venom, affects the heart exceedingly and the blood but little, while *crotalus*, the rattlesnake poison, causes marked effects on the blood and less on the heart, at any rate in the human subject. *Lachesis* acts intensely in both ways, and largely for this reason is the most used and most valuable of them all.

The powers of *lachesis* over the different elements of the blood need defining in terms of laboratory experiment, but the symptoms that call for the drug clinically are usually clear enough. There is lowered coagulability with liability to subcutaneous hæmorrhages: great destruction of red blood corpuscles which may give rise to (hæmotogenous) jaundice (this is a very marked symptom of *crotalus*), and apparently a lowered power of resistance to septic invasions, so that unhealthy ulcers develop, wounds are slow to heal, inflammations readily suppurate and signs of septicæmia appear. There is marked engorgement of veins and venules, so that blueness and lividity are characteristic appearances when *lachesis* is called for. Whenever sepsis attacks a case and resistance to it is poor, either *lachesis* or

crotalus may prove invaluable. Similarly, when an epidemic disease occurs in a specially virulent form, overwhelming the body resistance, whether it be enteric, small-pox or a streptococcal infection, symptoms often appear suggesting the use of a serpent poison, and lachesis or another can then be used with confidence. The lachesis pathogenesis, though symptoms predominantly affect the left side, shows nevertheless a relation of the drug to the appendix region, and when cases are not seen till suppuration has begun, then if after operation there are signs of commencing septicæmia, this remedy or crotalus should be given. In acute tuberculosis or acute exacerbations of the chronic disease, these poisons are invaluable, but on the whole crotalus and elaps are preferable here to lachesis. For severe diphtheria cases again lachesis is one of the most frequently used remedies, and its characteristic general symptoms often appear, apart from the fact that the pharynx is a notable region for its local action. In all these profound bacterial poisonings the effects of the serpent poisons can best be explained by conceiving them as powerful stimulants to resistance processes. They follow baptisia and bryonia well, act even more profoundly, and are therefore suited to more desperate cases. They are powerful aids given in minute quantities, because they are powerful and overwhelming poisons to body resistance in larger or long-continued doses.

From this general relationship of lachesis to virulent infections, it is time to turn to the specific symptoms which guide to the choice of it in these or other diseases. There are three very characteristic general symptoms (as distinguished from local ones) that belong to all the serpent poisons more or less (and all in a high degree to lachesis), and a fourth which helps to distinguish lachesis from crotalus or elaps. The first three are: (A) aggravation of all distressing symptoms (pain, delirium, etc.) after sleep; (B) very marked sensitiveness of the body surface, so that even a touch is intolerable,

and especially the slightest tendency to constriction ; (C) relief to distressing symptoms from the onset of a discharge : *e.g.* dysmenorrhœal pains come before the flow and are at once relieved when it appears, or severe headache is relieved when a nasal catarrh begins. It is also true that if an expected discharge (*e.g.* menstruation) does not appear normally, symptoms of pain or discomfort begin or are aggravated if already present. The fourth symptom belonging to lachesis itself, though not to crotalus, elaps or naja, is a predominant left-sidedness of symptoms (except as already noted for the appendix region), and especially a tendency for pains to pass from left to right. Thus in diphtheria, the left tonsil will show the disease first, and then the right. The exact opposite is characteristic of lycopodium, which supplements the action of lachesis in many ways.

Symptoms A, B, and C demand a little more discussion. The aggravation of distress after sleep is in itself, if well marked, enough to make a claim for the use of lachesis. The physiological differences between sleeping and waking are no doubt numerous, and their interaction probably complex, but it is virtually certain that during sleep the waste products of active life are eliminated. To be eliminated they must pass, for however brief a time, into the circulation, and it is easily conceivable that certain constitutions and states of disease should be peculiarly sensitive to their presence in the blood. If this sensitiveness is enough to cause an aggravation of symptoms (*i.e.* a further breakdown in the regions already affected by disease), it will produce this lachesis symptom of aggravation from sleep. On the other hand, patients who are notably better for sleep suggest *nux vomica* ; but aggravation of distress after sleep is a more important symptom than amenorrhœa, just because it is a more striking and unusual occurrence. The symptom manifests in a multitude of ways ; thus an asthmatic subject may wake to a violent paroxysm (it is characteristic that

the patient sleeps into the aggravation, there is no interval between sleep and increase of distress); pains of all kinds may become so acute that they wake the patient; palpitation or vertigo may increase even at the first onset of drowsiness and effectually banish sleep. In such cases as this last example, if sleep does come on, the patient will be the better for it, because sleep is impossible until there is a change in the body condition, thus the power to sleep is the indication of the change and the improvement after sleep the evidence that the change for the better has so far endured. The aggravation from sleep of the serpent poisons concerns physical rather than mental symptoms. Thus the night terrors of children more often find their remedy in stramonium or belladonna or its chronic counterpart, calcarea.*

Symptom B, the intolerance of pressure or constriction often stands out prominently in a symptom-complex. The patient desires all clothing to be loose and cannot endure collars or corsets to be in the least tight. Even the slightest pressure round the neck is particularly resented, and headache, if present, is worse for wearing a hat (as with *lycopodium*). If the larynx is affected, merely to touch it externally will bring on a paroxysm of coughing or spasm and dyspnoea. Patients who suggest lachesis as their remedy often suffer much from flatulence, but the desire to loosen clothing which they show is not a result of this only. Indeed, the cause of the intolerance of any touch or constriction is not so much that pain follows, as a kind of nervous uneasiness, quite uncontrollable as a rule. This points to the fact (confirmed in many ways) that nervous, unbalanced, hysterical subjects are very likely to come into the sphere of action of the drug, and the intolerance of pressure is to be read mainly as tactile hypersensitiveness. Associated with it is

* The following symptom is very trustworthy: a sense of confusion on waking; patient at first is unable to recognize surroundings, and wonders where he is.

a strong desire for air ; patients who feel suffocated when windows are shut, who cannot endure heat well, and long for cool, fresh breezes, whose symptoms are worse in the summer—these are often found to call for lachesis by other indications. Lachesis (as are serpent poisons generally) is emphatically a remedy for those who are distressed by heat, the very reverse of the chilly subjects who need arsenicum or nux vomica or calcarea.

Symptom C, relief from the onset of a discharge, is sufficiently clear as an indication. The explanation of it probably lies in the fact that great vaso-motor instability is a characteristic effect of the serpent poisons. Consequently local congestions and hyperæmias are common, and possibly the onset of a free discharge relieves these. The vaso-motor instability is expressed in the provings by local flushings, rushes of blood to the head and face. These and allied nervous symptoms make lachesis a remedy of great value at the climacteric, especially at the onset of that period when the menses are becoming delayed and when the non-appearance of the monthly discharge results in symptoms of discomfort and distress.

The “left-sidedness” of symptoms characteristic of lachesis is one of the most marked of these preferences of certain remedies for one side or the other of the body. It is impossible at present fully to account for them, but clinical observation will soon show that a predominance of such a symptom as pain or skin eruption on one side is a common phenomenon, quite independently of obvious disease of a special organ. If the spleen or heart or gall bladder is the seat of disease, it is of course easy to understand that symptoms should be referred to left or right, but apart from such simple explanations a right-sidedness or a left-sidedness of symptoms is often met with. Similarly it appears in drug provings, and when well marked, alike in case and in pathogenesis, it is a symptom worth noting. Lachesis markedly affects the left side (although for symptoms to proceed from left to right is also characteristic),

and this feature of the remedy is often a helpful guide to the use of it.

The mental characteristics that suggest lachesis have been determined for the most part clinically, by observing the types of individuals who respond best to the use of it. They somewhat resemble those of arsenicum, in being a mingling of melancholy with anger. In spite of the greatly increased physical sensitiveness and nervous irritability which is shown in the intolerance of constriction or pressure, the subjects that indicate lachesis are often not obviously excitable, but their melancholy breaks easily into fits of anger, however lazy and sad they may be between the outbursts. It is said that women with red hair and freckled complexions often conform to this type. Thin rather than fat people suggest the drug, and it is more often needed for children or those past the prime of life than for men or women between 25 and 45. Although melancholy, the patient who requires lachesis is the very reverse of silent. Loquacity is a characteristic symptom which becomes very marked indeed if the patient is delirious. It is a frantic loquacity, striving to express one thought after another with no apparent connection between them, while the mental powers now seem exalted, now depressed, and a swift succession of ideas sinks into incoherent confusion. The sense of time is frequently more or less disturbed in acute cases that call for lachesis: (cf. mercurius to which lachesis is an antidote). Hysterical subjects who talk interminably will often show other symptoms of the serpent poisons.

The delirium that suggests the drug after its stages of loquacity and deranged time sense, sinks, in severe cases into a low muttering condition with marked tremor; tremor of the tongue is characteristic: (cf. gelsemium, but lachesis is suitable to more severe illness than is gelsemium). Tremors and trembling readily occur in lachesis subjects apart from delirium, and cramps and spasms and even convulsions are often prominent. Spasms of

the throat muscles are particularly characteristic, and the drug has been used for rabies on this and other indications.

Fainting is a prominent symptom in the pathogenesis, and attacks of faintness are generally accompanied by other troubles, *e.g.* cardiac pain or nausea or vertigo. It is to be regarded as a symptom of the nervous system, and should be read in relation to the real value that serpent poisons often have in recent epilepsy, especially in *petit mal*. Subjective disturbances of sight and hearing are common complaints of lachesis subjects, and headache is apt to be a marked and persistent symptom. Characteristically it will be predominant on the left side and show intolerance of pressure and aggravation after sleep.

The alimentary canal is the site of many symptoms. Mouth and tongue may be inflamed, swollen and painful, the tongue trembling, dry, red and cracked, or brown or even blackish. Thirst is excessive. There is a constant tickling in the throat with dryness and burning. The tonsils may be inflamed (left worse and ulcerated) (lachesis is often needed in diphtheria), swallowing is very difficult and painful and spasms often check it, but solids are managed better than fluids, and empty swallowing is the most painful of all. Yet there is a constant desire to swallow. Touch or any external constriction exaggerates all the symptoms of pain and discomfort. After eating, the throat is temporarily relieved, and there is often a desire for food and increased appetite. Gastric symptoms are those of pain with convulsive vomiting, cramps and eructations. The pressure of clothing is intolerable; flatulence is excessive, making the abdomen hard and sensitive. Hiccough is a frequent symptom (another instance of spasm). There is sometimes obstinate constipation, but more often violent and painful diarrhoea, watery or pasty, offensive or bloody. Spasm of the anus occurs and hæmorrhoids are apt to appear, large, and bleeding freely (venous blood).

The effect of crotalus on the liver is very marked, producing a parallel to the effect of Yellow Fever, for which it is a most valuable remedy. Lachesis has no such profound influence, but provers experienced pains in both hepatic and splenic regions. The value of serpent poisons in appendicitis has been mentioned.

In the urinary sphere there are symptoms of difficult and painful micturition and violent pains in the urethra, but nothing that can be translated very clearly into morbid anatomy. For the male sexual system its use in obstinate ulceration (syphilitic or malignant) is of value, but on the testicles and prostate there is little evidence of profound action. But its relation to the climacteric makes it one of the most important of remedies for women. The drug can match all the general symptoms of the "change of life," the flushes, the nervous sensibilities, the multiple aches and pains, many of the mental and moral perturbations. It does excellent service also in dysmenorrhœa when menses are delayed, scanty (blood black and clotted), and when the pains and headache and discomfort *precede* the flow and are at once relieved by it. Pains in the left ovarian region are especially characteristic. Sexual desire is usually increased, and some troublesome cases of abnormal desire at the climacteric may find a remedy in this drug, whenever general symptoms of it are also present.

Sensitiveness and reflex spasms are also found among respiratory symptoms. The larynx feels constricted, and touching it externally brings on cough or spasm. Tickling sensations are usually referred to the trachea or lower, with a fatiguing dry cough. Subjective sensations of discomfort and pain are prominent. Asthma (with little bronchitis as a rule) is well within the lachesis sphere if general symptoms agree, *e.g.* heightened reflex sensibility and aggravation after sleep. Pneumonia (especially of the left side) in its later stages, especially septic or post-influenzal or post-enteric pneumonia, with an

enfeebled subject, a failing heart, and a persistent temperature will often find a remedy in lachesis. If the disease is right-sided, crotalus or elaps is to be preferred. When chronic or latent pulmonary tuberculosis becomes infected with subsidiary organisms (streptococci particularly), and an acute exacerbation occurs with profuse (often blood-stained) expectoration, debility, sweats and hectic temperature, there are no remedies so likely to help as the serpent poisons. Here they follow baptisia well. Also in miliary tuberculosis they are of great value, reinforcing the power of potencies of tuberculin, which avails as a rule most in that most intractable and dangerous form of the disease. In all these conditions the indications are to be looked for in some or other of the well-known general symptoms accompanying cases obviously labouring under profoundly poisonous infections and lowered resistance thereto.

From much that has been already said, the use of all serpent poisons for any septicæmic state will be frequently suggested. Just as poisonous doses of them lower coagulability (causing hæmorrhages and extravasations of blood) and diminish resistance to septic invasions, so medicinal doses heighten resistance and enable the body to combat sepsis. No remedies surpass the serpent poisons for helping profound systemic bacterial poisonings. Arsenic, carbon, nitric acid compete with them, but the two first present the general symptom of aggravation from cold, and nitric acid, like mercury, affects most those to whom both extremes (heat and cold) are unpleasant. The serpent poisons, on the other hand, find their subjects most readily among those to whom cold is grateful and heat distressing. Such diseases as bubonic plague would in general suggest to the homœopathist the application of lachesis or one of its congeners, and, as has already been indicated, symptoms calling for one of these remedies are likely to present themselves in the grave cases of many acute diseases, enteric, pneumonia, scarlet fever, etc.

Seeing that these poisons kill through their action on the nerve mechanism of the heart, it is no wonder that homœopathists prize them for the relief of certain cases of *morbis cordis*, wherein that mechanism is affected. Palpitation with fainting, cramp-like pains and dyspnœa, quickened and irregular pulse, sense of constriction and intolerance of the least pressure—these are the most prominent symptoms that suggest it. It will help functional as well as organic disease if the symptoms correspond. When marked valvular disease is present, possibly naja is the serpent poison of election, but lachesis has much to advocate its use. Malignant endocarditis, on symptomatic grounds, calls for it frequently. In this deadly disease vaccine treatment has had some striking successes, and lachesis or naja should be given between the vaccine doses, as they seem to tend to heighten the response of the body.

The effects of the drug on the skin are secondary to its influence on the blood. Thus ulcers and wounds bleed readily and heal badly and are very sensitive. Petechiæ are common, and a variety of eruptions have been recorded. Lymphatic glands swell. Particularly do ulcers and wounds show a bluish margin and unhealthy granulations when lachesis is indicated. Even gangrene or the tendency thereto may be notably helped by it.

Since sleep so often causes an aggravation of symptoms in patients who require lachesis, the rest is apt to be much broken, and consequently the day is often a period of great drowsiness. When asleep dreams are frequent, and unusually detailed; they are generally horrible and terrifying.

Lachesis is a remedy which has been hardly, if at all, used in potencies lower than the sixth centesimal. Crotalus and naja can be obtained in lower potencies, and there is some evidence that when sepsis is marked and threatening, the lower potencies are preferable. Given, however, characteristic general symptoms, the highest potencies of lachesis, with infrequent repetition, seldom fail to give good results. Lycopo-

dium is complementary in its action to lachesis, and to a less extent hepar sulph. and nitric acid. Iodine precedes or follows it well, especially in pulmonary complaints.

LYCOPODIUM.

Lycopodium clavatum (Club Moss) Trituration of Spores or Ethereal Tincture of Spores.

The spores of lycopodium when collected form a light dry powder, which is used as a coating to pills and a dusting powder for excoriated surfaces, and is generally held to be quite inert. A century or so ago it had a regular place in medicine, being prized for certain conditions which suggest that an unconscious homœopathy had found its way into the uses of it. Hahnemann found it in use and by his method of trituration quickly made it one of the most valuable of all remedies. Within the outer coating of the spore is an oily layer wherein seem to reside most of the medicinal virtues of the drug and trituration, by rupturing the spore, sets this free. Ether will extract the oil and an ethereal tincture is therefore another method of pharmacy: but there are also mineral salts in the spores which are included in the trituration, and it is probable that they count for something in the pathogenesis. Particularly prominent are the elements silica and aluminium and resemblances to the symptoms of the first named are significant in the provings. The use therefore of trituration seems desirable for lower potencies and tinctures (colloidal solutions) or triturations for the higher ones.

Lycopodium is very highly valued in chronic diseases, being chosen very largely on general constitutional symptoms, but it has also a very marked relation to the alimentary canal and the liver, and is frequently indicated in disorders of this tract by the local

symptoms. It will be well, however, to master first the general characteristics and peculiar symptoms. They are so definite that lycopodium is one of the drugs most readily selected on a homœopathic basis.

It is particularly well adapted to patients in whom the mental powers have, as it were, outrun the physical, where the intellectual faculties and interests count for much, but the bodily strength is deficient, the muscles weak, and the fundamental processes (digestion, excretion, &c.) apt to be faulty. This relation of drug to patient is true at any age: precocious, weakly children respond to it wonderfully. Dr. Kent instances Paul Dombey as a lycopodium subject, and that is a convenient instance to fix the type in the mind. Older people become mistrustful of themselves and of others, hypochondriacal, complaining (often with reason) of failing memory and slowness of mental reaction, and this generally when they have been accustomed to consider their brain power above the average. The physical strength is nearly always below the average also, but usually the complaint is of failure of mental powers, for the typical candidate for lycopodium has probably never rejoiced much in bodily activity or cared for athletics. He is apt to be a brooding, sedentary person, mentally absorbed, physically indifferent. Lycopodium has been called the "miser's" remedy: the hint is valuable if interpreted to mean (as it does) that the saving and meanness come out of a real gnawing anxiety for the future and undue sense of responsibility. It is not so much love of money as such, but anxiety as to the possible lack of all that money means for the individual and his dependants, that make up the "miserliness" that calls for lycopodium. This sense of responsibility developed into a positive burden to life is characteristically shown also in a constant fear of breaking down under stress (*e.g.* the barrister fears he will lose the thread of argument in court), a fear which is constantly falsified, but nevertheless persists. This symptom is very marked also under silica, and

possibly the silica in lycopodium shows its effect in this characteristic.

A good deal of depression and of irritability is likely to accompany a condition calling for lycopodium. Under-nourished states, especially those due to chronic dyspepsia or threatening tubercle or congenital syphilis will often suggest its use. The skin is often dry and reacts poorly, the hair falls readily : vasomotor disturbances (flushings and sensations of sinking and emptiness) are common, especially at the characteristic time of aggravation of lycopodium, to be presently noted, and with them a consciousness of pulsation of arteries that has led to some special uses of the drug.

Among the general symptoms there are some very characteristic and easily recognized. Thus, symptoms are worse from 4 p.m. to 8 p.m. (occasionally the aggravation endures longer, though commencing at about 4 p.m.) : if the disease is characterized by paroxysms (*e.g.* asthma, neuralgia, etc.), the worst attacks will fall into this part of the twenty-four hours. Times of aggravation point generally to an alteration of the normal rhythm of life. In health there is a curve of the general vital activities which has a relatively constant maximum and minimum : in disease this curve is apt to be altered (the inverse type of temperature in tuberculosis is familiar), and alterations of rhythm, if shown by fairly constant times of worsening and of amelioration, have great value as general symptoms. The lycopodium symptom is rather an intensification of the normal rhythm than an alteration of it, but is very characteristic. Hellebore is the only other drug that shows the symptom in so marked a degree (for the twilight aggravation of *pulsatilla* and *phosphorus* seems rather a reaction of the mind), and whenever it is clearly marked it should always bring the thought of lycopodium to the mind of the prescriber, as lycopodium is a drug of much greater range of action than hellebore. Typically (though variations occur frequently), the aggravation begins at 4 p.m., continues till 6 p.m.,

then tends to lessen till 8 p.m. After this it may disappear or begin again after a period of amelioration.

The symptoms of pain, etc., that indicate lycopodium characteristically begin on the right side and then travel to the left. Drugs that notably influence the liver, as lycopodium does, have always a certain "right-sidedness" in the incidence of their symptoms, a predominance of right-sided aches and pains and inflammations. It is difficult to explain the phenomenon; but it certainly comes out clearly in drug provings, and equally is often prominent in disease, and the homœopathist finds it when well marked (and no symptom is of much value unless well marked) a good indication for the remedy. With lycopodium it might show as a tonsillitis beginning in the right tonsil and then attacking the left, or it may be a headache or pain in the ovarian region, but if the symptom takes the direction right to left, that is so far an indication for lycopodium. Lycopodium is a complementary drug to lachesis, often completing a cure which lachesis has begun, and with lachesis the direction of symptoms is the exact opposite, being left to right, and lachesis symptoms are as predominantly left-sided as lycopodium symptoms are right-sided.

Relief to pain and discomfort, from uncovering is a lycopodium symptom. Thus in headache, to remove the hat relieves, in abdominal pain the clothing is loosened. It is not only a desire for cool air to the head (although the candidate for the drug prefers the open air, is better out of doors, and worse in a stuffy atmosphere), but also a dislike of pressure that is thus exemplified. It is interesting to note in view of the presence of silica in lycopodium, and the hint above mentioned that silica makes its presence felt in some symptoms, that the headache of silica is relieved by wrapping up the head warmly, the exact reverse of the condition sought for when lycopodium is the indicated remedy.

Although open air and general coolness are preferred, any abdominal pains and discomfort are aggra-

vated by cold food and drink, and relieved by swallowing warm things. Phosphorus patients are chilly in type, but their gastric symptoms lead them to desire cold food: lycopodium patients are of a warm-blooded type, but suffer from cold food. It should be added that with lycopodium patients the aggravation from cold food and relief from warm extend also to headache or sore throat. Two curious lycopodium symptoms may be noted here: the first is the frequency of to-and-fro movements of the alæ nasi in patients requiring it. These are not (as has mistakenly been maintained) the movements of dyspnoea: they are not synchronous with respiration, but are of the nature of twitchings, occurring with some rapidity. Spasm is not infrequent when lycopodium is required, spasm, for instance, of the tongue and of the facial muscles, movements of the head, constriction of the throat (Globus). The other curious symptom is that the right foot may be hot and the left foot cold. Much derision has been poured on this statement, and it has been attributed to thrombosis of one side and so explained away; but it is a subjective symptom which unquestionably occurs every now and then in chronic disease, quite independent of any blocking of circulation. Its explanation is impossible at this stage of knowledge, but without a doubt it depends on some definite pathology, and there is ample evidence that on the (not very frequent) occasions when it is complained of it is an excellent indication for lycopodium.

Other general symptoms are restlessness leading to desire to move about, which generally removes pain, as with rhus tox: dryness of the skin, especially of palms of the hands, dryness of mucous membranes, falling of the hair. The fear and apprehensiveness noted among the mental characteristics are apt to have a profound effect on symptoms affecting the body (*e.g.* gastric and liver symptoms), making the drug suitable for obviously hypochondriacal persons: crossness and irritability are frequent concomitants

of these groups of symptoms, and form in themselves additional indications for lycopodium.

Apart from general characteristics, lycopodium has a very definite relation to diseases of the alimentary tract. When it is needed there will usually be present several of the general symptoms already noted (such as the time aggravation), but in addition there are characteristic local symptoms which indicate a catarrh, chiefly of stomach and duodenum, with extension to the bile ducts. The tongue is usually coated and characteristically dry, saliva being tough and scanty: there may be cramps or spasms of tongue muscles (the movements of the *alæ nasi* have been already described): the throat is sore and dry: ulceration or tonsillitis (diphtheria will react well to lycopodium if the general symptoms of it are well marked) will be on the right side with a tendency to spread to the left. The appetite is capricious, being sometimes lost and sometimes excessive: characteristic is hunger with sudden satiety after a mouthful or two. A sour taste in the mouth, nausea with sour risings, a general tendency to acidity are noted. Craving for sweet things is common and aversion from oysters. Patients who are labelled "gouty" are often candidates for lycopodium. Without doubt there are several disorders of incomplete metabolism confounded often under one heading of gout, and each with its own particular excess of this or that waste product. There is a metabolic disorder of the vegetarian, as well as of the meat eater, and other cases may incline predominantly to one type or the other. Lycopodium seems generally more suitable to patients who eat little meat (or may even dislike it): they are liable to pass an excess of oxalates in the urine, though the characteristic excretion of lycopodium contains also urates in quantity and uric acid. Nausea, vomiting, water-brash and gastric pain are relieved by heat locally; these all testify to the involvement of the stomach. Flatulence is a very marked symptom of the remedy, but affects the bowels more than the stomach, and

is passed more by the anus. The result of the fermentation and distention is a sense of acute discomfort felt especially in the right hypochondrium, and leading to a characteristic desire to loosen the clothing or to intolerance of any pressure. The liver may be felt enlarged and the patient may be jaundiced: the drug seems to have power to cause catarrh of the bile ducts, and as this is a precedent condition to gall-stone formation, lycopodium may be useful in that disease, in the intervals between attacks. Cramping pains point to irregular peristalsis, and rumbling and gurgling to the fermentative quality of the disturbed digestion. The patients are usually constipated. As with alumina and silica (both of which are prominent among the mineral components of lycopodium) the constipation arises from an inertia of the bowel, the motions are only passed with considerable straining, hæmorrhoids are common, and there is often pain and bleeding from evacuation. The constipation of infants is often much helped by lycopodium.

All these abdominal and alimentary canal symptoms are to be read as the signs of a general failure of the tract to function normally, with consequent incomplete metabolism. Invariably with such cases, symptoms (conveniently though summarily labelled as "toxic") are apt to occur, such as headaches, neuralgias of this or that nerve, joint pains and chronic swelling, to say nothing of mental symptoms such as have been already described, which lead to a diagnosis of "neurasthenia" or "hypochondriasis." Sometimes these (really) subsidiary symptoms are more prominent than the alimentary canal symptoms and mask them, but whenever they are such as to call for lycopodium they will have some of the characteristic features of the drug. The pains will be worse from 4 p.m. to 8 p.m., the headache will be relieved by open air and made worse by pressure (as of the hat), the sciatica will be worse from pressure (lying on the affected side), and so on. The symptom-complex is to be read as a whole, but if the abdominal

symptoms are clear and are recognized early, then lycopodium will clear up the case, and these later evidences of uncured trouble will not appear.

Joint pains are often accompanied by cramps and spasms of muscles. External heat generally relieves the pain, so as a rule does movement. Wasting of muscles is common (lycopodium patients are often emaciated), less from organic nerve disease than from general malnutrition and inability or unwillingness to exercise. The skin is not very characteristically affected by lycopodium. Urticarial eruptions are perhaps the most generally seen, though chronic ulcers, if lycopodium symptoms are present, do well on it. The dryness of the skin, especially of the palms, should be remembered.

In the genito-urinary sphere the drug is often called for. There is some evidence that it affects the prostate gland, and chronic disorders of that organ may be benefited: (baryta and digitalis are more often helpful in enlarged prostate than any other remedies). Especially is lycopodium valuable in premature or temporary loss of sexual power either following masturbation or excess. Characteristic is sexual desire without sexual power. Gleet remaining after gonorrhœa is often helped by it. In the female the periods are irregular, apt to be excessive (though not always) and there is generally increase of desire and local burning and itching.

The urine is increased in quantity, sometimes clear on being passed, but containing as a rule both urates and uric acid in excess. Oxalates are often increased in quantity. The urine is generally markedly acid and thus causes pain on urination in sensitive subjects. Renal calculus and gravel may be helped by lycopodium.

The air passages and respiratory organs are (next to the alimentary canal) an important site of action of this drug. The voice is apt to be husky rather from tracheitis than from laryngitis: the cough is typically obstinate, dry and tickling, but there is also a condition met with in late phthisis or bron-

chiectasis that is helped by lycopodium, where the sputum is copious and purulent. It has great value in chronic lung affections, tuberculous or pneumococcal, when any of the general symptoms are present, but the evidence seems to point to its power being exerted less against tubercle specifically and more against the secondary infections (catarrhalis, streptococcus, etc.) that so often are added to tubercle. The dry cough which it benefits is more likely to be pneumococcic or influenzal than early tuberculous, and for chronic pneumococcal cases (pneumonias that resolve badly) it has great power. Chronic nasal catarrhs (catarrhalis, pneumococcus) will often benefit. There is often noted a tendency to slight capillary bleeding (not the big hæmorrhages of tubercle, but the oozing of surfaces) and the taste of blood in the mouth is often complained of. Asthma may be relieved by lycopodium (the time of the paroxysm frequently gives the indication).

As regards the heart—pain, palpitation and anxiety are often complained of, but they appear to be secondary to the metabolic disorders, and not due to primary heart lesions. Nevertheless, if they are notably caused or aggravated by abdominal flatulent distension, lycopodium should not be forgotten. More important, however, is the effect of the drug in producing a great increase in consciousness of arterial pulsations, throbbing of arteries anywhere, and arterial excitement. This symptom has led to the use of lycopodium for inoperable aneurism, and so much success has followed it, at any rate as a reliever of symptoms, that it is difficult not to credit the drug with some influence on arterial tissues. Remembering its relation to alimentary “toxæmias,” and how often gout in all its forms affects arterial degeneration, it is probably from this side of its powers that lycopodium achieves any results: it is in any case well worth remembering, competing in this disease with barium and adrenalin. In Graves’ disease, if the vascular symptoms are prominent, lycopodium has a place, though perhaps natrum

muriaticum is here more often called for and belladonna for the ready relief of symptoms.

Lycopodium patients often sleep badly, as the four to eight aggravation may be continued through the early night and so conduce to restlessness. In febrile cases the time aggravation should be marked if lycopodium is indicated.

It is not too much to say that the physician who learns to use lycopodium has at his disposal a most potent remedy for many chronic disorders, especially those common to civilized communities, and the classes who use up nervous tissue rather than muscular. High potencies and infrequent repetition give the best results, but diseases of the alimentary canal will often be helped by low and medium potencies at any rate for a time.

When joint and limb symptoms are prominent lycopodium frequently takes up and completes the work of rhus. Iodine and especially chelidonium are complementary to it in action. If lycopodium seems indicated, yet fails, the case will often respond to chelidonium, and *vice versâ*. Graphites, too, especially in its abdominal symptoms, is a drug to be remembered in its helpful relation to lycopodium.

MANGANUM.

Manganum Aceticum—Acetate of Manganese Solution
Manganum Carbonicum—Carbonate of Manganese
Trituration.

Both the preparations of manganese were proved by Hahnemann. Their symptomatologies are similar and either may be used on the indications which follow.

Physiologically manganese appears to resemble iron in its tissue reactions, and has been used (largely as permanganate of potassium) for chlorosis and

amenorrhœa. Its provings show that it causes anæmia of a definite type with destruction of red blood corpuscles. When other symptoms confirm the choice, it is a valuable remedy for anæmia: the varying results obtained in non-homœopathic hands arise no doubt from its being used in cases for which it is not suited. Individualisation is the only road to success with drugs, and "anæmia" is a name covering a large variety of conditions: only a proportion will be covered in their symptom-totality by manganese, and only those will be relieved by it.

Chronic manganese poisoning (seen in workmen exposed to the dust of it) presents symptoms predominantly in the nervous system: psychical (of the nature of hysteria) and physical, affecting motor centres with spastic gait and increased tendon reflexes. Epileptiform convulsions have been seen in rabbits and depression of the vaso-motor centre with falling blood pressure as a result of large doses. More chronic poisonings cause jaundice, with destruction of red blood corpuscles, and nephritis with albuminuria. The alimentary tract is irritated but not ulcerated.

Professor Hugo Schulz regards manganese as a remedial agent of considerable importance. His observations confirm in general those of homœopaths. He uses the drug for some cases of anæmia and disorders of the liver: to the jaundice noted above as an effect of the metal he adds fatty degeneration of the liver.

Mr. McDonagh points out that in the vegetable kingdom manganese plays a part comparable to that of iron among vertebrates. He uses colloidal manganese (often with copper and antimony) to increase resistance to certain bacterial diseases (notably gonorrhœa) and claims good results.

Permanganate of potash is a very familiar disinfecting and deodorising (oxidising) agent, and is used in this way as gargle and lotion. It antidotes opium. A proving of it made by Dr. H. C. Allen brought out some very marked symptoms of the upper respiratory tract and pharynx: swollen uvula, intense irritation

of nose, pharynx and larynx with free discharge of pus and blood. The other salts of manganese influence the larynx especially, but their effects on pharynx and nose (though observable) are not so marked as those of the permanganate. These symptoms have led to some use of the permanganate for diphtheria, and considerable success has been claimed: great prostration is said to be a confirming symptom. Permanganate is a favourite gargle, and its value may be more than that of a simple antiseptic.

The profound effects of manganese on the nervous system have been already alluded to as revealed in poisonings. The provings confirm these and add details. The prevailing mood is one of depression, it may be described as a taciturn peevishness and fretfulness with occasional outbursts of hysterical mirth. The mind appears abstracted from daily life and the senses dulled. The paralysis is of a spastic type with increased reflexes and later symptoms that suggest degeneration of the cells of the anterior horn of the cord; progressive muscular atrophy appears. The symptom of inclination to run forward on trying to walk is recorded. Muscular cramps and twitchings are observed. Sensory symptoms are also caused: particularly noteworthy is a *general feeling of soreness* all over the body. The bones become very sensitive, and neuralgic pains are common. The hands and feet (apart from the joint symptoms to be presently noted) feel swollen, and tactile sensation is diminished. Cases of disseminated sclerosis may recall the symptom-picture of manganese, and it is a drug to be considered in relation to this disease.

Of other important spheres of action of the drug, the joints take a prominent place, and manganese is often a remedy for chronic arthritis. The general soreness and sensitiveness and aching of bones (probably due to periostitis) are accompanied by pain and swelling of joints, especially of the ankles. Red spots like those of erythema nodosum are noted, and an unhealthy state of the skin, particularly in the neighbourhood of the joints, when small injuries

suppurate and ulcers are sluggish and slow to heal, with bluish unhealthy margins. The drug is often needed for joint and bone affections in syphilitic or tuberculous subjects. The alimentary canal is irritated: the tongue often furred and notably sore, developing little ulcers or papillomata or vesicles, the throat dry and sore, and heat and burning in the stomach; flatulence and griping pain in the stomach usually with constipation. On the whole, however, the alimentary canal symptoms are secondary, though the drug has a profound effect on the liver (fatty degeneration and some degree of jaundice) and has a value in syphilitic cases.

The effects on the respiratory tract are more important, at least in its upper part. There is chronic catarrh of the nose, with as a rule dryness and scanty secretion, and the middle ear is notably affected with thickening of the tympanum. Much shooting pain is experienced in the ears, with tinnitus (whistling tinnitus is said to be characteristic), and deafness. Chronic otorrhœa has been benefited by it. The drug's relationship is to middle ear disease of rather a chronic type. The throat feels dry, the larynx dry and painful; dry painful cough, worse from talking but relieved by lying down: the voice is hoarse and speech often painful. Tuberculous or syphilitic laryngitis may call for it. The influence of the drug does not seem to extend to the lungs.

The red blood corpuscles are destroyed by overdoses of manganese with resulting anæmia, and for chlorosis with chronic gastric symptoms, loss of appetite, general body soreness, an unhealthy skin and weakness of the joints, such chlorosis as is not infrequently seen in commencing tuberculosis, manganese has a well-deserved reputation. It suits young and growing patients: in women the periods are typically too frequent but scanty: hæmorrhage is not a symptom of manganese as it is of iron.

Symptoms are generally worse at night, worse from motion, worse from cold, especially cold and wet. Rest and warmth relieve most symptoms.

MERCURY.

Mercurius Solubilis. An impure oxide prepared according to a formula of Hahnemann's own which dates from his pre-homœopathic days, and is still used by non-homœopaths in Germany. Triturations for lower and tinctures for higher potencies are made of this. *Mercurius Vivus*, the metal, prepared by trituration and as tincture for high potencies. The symptoms of these two are virtually identical, and either may be given on the indications which follow.

Mercury has long been used in medicine, and overdosing with it at one time was far from uncommon ; therefore, its gross effects upon the human body are well known to all physicians. It is not certain in what way mercury is absorbed, but it may well be that with this, as with other metals, insoluble particles are taken up by the leucocytes (from alimentary canal or after deep or superficial injections) and so reach the tissues, where by processes unknown (at present) they enter more deeply into the cellular life.

Acute mercurial poisoning, particularly by corrosive sublimate* has marked local effects as well as more distant ones. If swallowed in any quantity, the symptom of a harsh metallic taste is followed by severe burning pain in mouth, throat, and stomach : nausea and vomiting set in, and blood and mucous membrane shreds are found in the vomit. Presently the involvement of the bowel is shown by tenesmus and loose and bloody (dysenteric) stools. Collapse with all its usual symptoms soon appears. The urine is suppressed or diminished, and albuminuria with casts, epithelium and (sometimes) blood is almost invariable. Sugar has been found in the urine. The temperature is generally lowered. The mental state

* Corrosive sublimate, the perchloride of mercury, is known to homœopaths as *mercurius corrosivus* : its general symptomatology resembles that of *merc. sol.*, or *vivus*, but in the course of this article those conditions will be noted which specially indicate it, for it has certain spheres of very marked action.

is usually either one of somnolence with attacks of vertigo or of restlessness. Consciousness is little affected. Death ensues from collapse or gradually from exhaustion. Of these symptoms, those of mouth and stomach are largely local, though there are specific symptoms here also (after more chronic poisonings) which are noteworthy. But the kidney and bowel symptoms appear, however the poison is introduced, and are therefore more profound and characteristic of the metal.

More chronic poisoning has often arisen as a sequel to incautious medication. The condition is known as mercurialism, and is of the profoundest interest to the homœopathist. First of symptoms to appear are a metallic taste in the mouth and numbness or soreness of the gums and tongue. The tongue is swollen and thickly coated, the gums swollen and soft, and the breath foul. The saliva is notably increased. If the poisoning continues, ulcers appear on tongue (opposite the teeth), cheeks and gums, and the saliva is not only profuse but irritating. Larger doses still may cause the teeth to fall out and gangrene of soft parts, and even necrosis of the jaw, to follow. Any caries of the teeth markedly predisposes to local poisoning effects.

The stomach and bowel are affected, so that anorexia, gastric discomfort, nausea, and vomiting appear, and colicky pains. The stools are generally loose, but periods of constipation often alternate with periods of diarrhœa. The first effect of the drug on the bowel in provers is usually to cause constipation.

Mercury is excreted by salivary glands and glands of mouth and throat, and to this process (and not to local irritation) is to be attributed the stomatitis and salivation of chronic mercurialism. The ex-coriations and ulcers follow, and if through carious teeth the ulcerative process reaches the periosteum, then periostitis occurs. Mercury has no such action on bone as phosphorus has, and any necrosis is a sequel to the periostitis. The bowel is affected more

than the stomach, for mercury is excreted largely here, mainly by cæcum and colon. Thus all the appearances of chronic dysentery may be produced, with ulceration and necrosis of tissue, and its symptoms naturally are observed. Contrary to the usual belief, mercury (even calomel) does not increase the secretion of bile.

Skin eruptions are by no means uncommon, taking the form of small reddish spots, or larger patches of erythema, urticaria or eczema. Several forms may be seen in the same patient. Desquamation follows. Albuminuria has been observed and rarely glycosuria. Diuresis follows the administration of mercury, seemingly by a direct action on the kidney cells. As already noted, corrosive sublimate causes nephritis more certainly than other preparations of mercury, though other compounds approximate to it in mode of action more or less. An actual necrosis may occur with the perchloride, and phosphate of lime is then deposited in the tubules. The result of all these tissue disturbances is a more or less profound cachexia with anæmia, weakness, fainting fits and restlessness. The pulse is small and quick. The red corpuscles and hæmoglobin of the healthy subject are said to be at first increased by mercury and later diminished, while in syphilis the drug induces at first a sudden fall and then a rise in both respects. This is a significant observation for the homœopathist.

Mercury given medicinally, even in excessive doses, rarely affects the nervous system; but workers in mercury mines, or in such manufactories as expose them to inhalations of the fumes for long periods, are apt to pass into a state characterized by great irritability, with timidity and dislike of company. Sleeplessness and delirium with hallucinations may follow. Muscular weakness is considerable and a general tremor (beginning in hands and arms) is very characteristic. Neuralgias, anæsthesias, or localised paralyses occur; and the special senses suffer, so that amblyopia, anosmia, and deafness

have all been met with. Both the tremor and the sensory and motor symptoms are probably to be regarded as central and not as peripheral in origin.

The blood pressure tends to fall from excessive doses of mercury. Nutrition (metabolism) appears to be improved by small doses and therefore the cachexia of poisoning may be partly due to a reversal of this favourable effect by excessive quantities ; but the local effects of the poison and their consequences mask the metabolic changes. But experience leaves little doubt in the mind of the homœopathist of the power of the drug over general metabolism.

The intestine and kidney are the chief points of excretion of mercury, but sweat, saliva, milk, gastric juice and bile have all shown traces of it after poisoning. In fact, it penetrates into every organ of the body in time, and is a drug of most profound and universal power. Excretion is very slow.

Mercury is naturally very poisonous to elementary organisms, and preparations of it are much used as antiseptics. Its undoubted effects in syphilis are attributed to its power to kill the spirochætes. It is more deadly to them in the test tube than to organisms of malaria or trypanosomiasis, and some specificity of reaction is clearly present, since a solution of 1 in 200,000 is lethal. But it is by no means certain that this simple explanation of its curative action is sufficient. Now that chronic mercurialism is relatively rare, it has passed out of general observation that this condition can (and often does) present the closest resemblance to the effects of syphilis. Inasmuch as the drug poisoning generally occurs in syphilitic subjects, its effects are naturally masked by those of the disease ; but a century or so ago more than one famous physician recorded the resemblances between them—among others, Hahnemann himself in his pre-homœopathic days. When the homœopathist claims that mercury is frequently the *simillimum* for a case of syphilis, the essence of his contention—the resemblance of

symptoms producible by syphilis to those producible by mercury—has been admitted by many celebrated men who had no interest in Homœopathy. Indeed, this resemblance has led more than once to the attempt to formulate a rule of treatment, such rules in practice being virtually always reproductions more or less detailed of the Hahnemannian generalization. Professor Schulz, for instance, in recent days is clear and definite on the resemblance between the symptoms of drug and disease as a guide to cure, and lays great stress on mercury as an instance of the value of the rule.

In the main to a homœopathist the indications for mercury are found in the secondary stage, but there they are nearly always clear, and while generally he uses the lower potencies, he does not find it necessary to have recourse to the larger quantities fashionable to-day. Not that homœopathists do not sometimes make use of them, for they rightly maintain that the principle of similars is independent of the size of the dose, and they admit that good results appear often to follow the larger dosage. But they retain great scepticism as to whether the drug effect is a parasiticial one and they are well aware of the dangers of excess of mercury in the system, so that they use the larger dose with even more caution than their colleagues who do not share their opinions. They are much more disposed to believe that, since there exists some bodily resistance to the parasite confessedly sufficient in mild cases to effect a cure without aid of any remedy, therefore the true line of treatment is to endeavour to heighten this resistance. Since mercury indubitably helps to cure, they conceive that it works rather through increasing the efficacy of the resistance than through killing the parasite,* and point with more than interest to the resemblance between effects of the drug and effects of the disease. When the homœopathist treats

* No doubt some *spirochætes* are killed by direct action when large doses are given, but the homœopathist would take this as an accessory action of the drug, not as its most important one.

syphilis with mercury he does so as an exemplification of his rule of practice, and if the patient presented no signs characteristic of this drug, he would be disposed to give rather the remedy that was indicated by the whole symptom-complex.

The use of mercury for syphilis is so outstanding a feature of medical practice that it has to be thus considered as a particular application of the drug ; but the distinctive knowledge of the homœopathist (from provings even more than from poisonings) defines the sphere of mercury for many conditions. Whenever the characteristic symptoms appear, mercury is the remedy of choice, syphilis or no syphilis ; and once again, syphilis should only be treated (and is only treated) homœopathically by mercury when it presents symptoms corresponding to those of the drug.

There are certain general symptoms of mercury brought out by homœopathic experience which often give the clue to the right use of the remedy. Thus, there is a sensitiveness of reaction to temperature, so that any change either in the direction of heat or cold worsens the patient's condition. Many drugs suit patients averse from cold, and many others those averse from heat, but the candidate for mercury dislikes both. It is the change which is resented. Another very marked symptom is that disease conditions are worse at night, from sunset to sunrise. This is the division of the twenty-four hours when syphilitic patients are usually worse, and all the remedies predominantly valuable in syphilis show a nocturnal aggravation of symptoms. mercury shows it notably, but it appears under *hepar sulph.*, *arsen.*, *aurum*, *nitric acid*, etc. Tremor (of head, of hands, of tongue, etc.) is pronounced in many cases that need mercury. It goes on to paresis and paralysis and is accompanied by great restlessness ; sometimes it is exaggerated into spasms, cramps, convulsive movements. It is often accompanied by fainting fits, and in any case there is great debility. Mind and body are alike weak :

questions are ill-understood and memory and will-power deficient. But, on the other hand, there is a great feeling of hurry and anxiety in the patient. He talks rapidly in delirium and time seems to pass slowly : everything is done hastily, though usually ineffectively. The drug is often suggested in paralysis agitans. Coming to more objective symptoms, mercury causes and cures profuse sweatings, which characteristically do not give any relief. It helps acute and sub-acute rheumatism frequently when this symptom is prominent. The sweat is often offensive. The mouth is so definite a point of attack of mercury that it is natural that mouth and tongue symptoms should be of value in selecting the drug, and an offensive, sweet, mawkish odour of the breath and taste to the patient are very characteristic. The tongue is swollen, flabby, moist, heavily coated, and indented by the teeth ; the gums are sore and swollen, the teeth may be loose (pyorrhœa is a condition where mercury should be remembered), the saliva is thick and profuse : toothache from caries of the teeth is more controlled by mercury (pending the dentist's aid) than by any drug except perhaps creosote. There is great thirst. A slimy mucus predominates in secretions that suggest mercury as a remedy, together with pus. The nasal and pharyngeal catarrhs are of this kind, causing soreness of the nostrils and ulceration. Many nasal catarrhs respond to mercury, and especially a general tendency to nasal middle ear disease infections, from involvement of the Eustachian tubes may be cured. Mercury rivals pulsatilla in measles and scarlet fever when otitis media appears. There are pains in the throat, swelling and inflammation of pharynx and tonsils, with secretion of thick and tenacious mucus : the pains shoot up into the ears. Quinsy will often be helped, but the throats that respond best are those that are markedly "septic." In diphtheria the cyanide of mercury is the preparation of election, and perhaps a majority of all cases of this disease need it. The biniodide is also used : it has value in

tonsillitis and pharyngitis, but is inferior to the cyanide in diphtheria. Swallowing is naturally difficult, but thirst is considerable in these circumstances. The sore throat of secondary syphilis is a typical condition for the use of mercury. Inflammations and affections of the salivary glands are well in the mercurial sphere. The unpleasant, sweetish, metallic taste in the mouth, which is characteristic, naturally affects the appetite. Stimulants are often craved, and sometimes there is great desire for food. More often, however, there is dislike of all solids (sweets especially) and only liquids will be taken, for the thirst remains, however much the appetite be lost. Digestion, however, in conditions that suggest mercury is very defective. Sharp and heavy pains, anxiety and vertigo, nausea and vomiting, and violent eructations proclaim the trouble of the stomach. Though mercury may not increase the flow of bile, homœopaths find many symptoms of its pathogenesis referable to liver disturbance. Thus, the region of the liver becomes sensitive and resents pressure, and there may be a degree of catarrhal jaundice. There is marked dislike to lying on the right side. However, hepatic symptoms that call for mercury are rather those due to secondary than primary disturbance of that organ. In the bowel, it is principally the end of the small intestine and the cæcum and colon that are affected. Here, as already observed in the discussion of mercurial poisoning, acute inflammation and ulceration are produced by the drug, and the homœopathist thinks of it for dysentery, acute colitis, and, in fact, all severe inflammations of this tract. The stools are loose, bloody, mucoid, with shreds of tissue. Pain is severe, and both pain and diarrhœa are worse at night. There is much tenesmus and straining, and the anus becomes very sore and excoriated. Probably bacillary dysentery more often presents mercurial symptoms than amœbic, but the homœopathist would review each symptom-complex as it presented itself, without prejudice, and if the complex suggested mercury

whatever the pathology, would administer the drug. Of all mercurial preparations, *mercurius corrosivus* (corrosive sublimate) is best adapted to cases of dysentery.

In less acute conditions mercury is often valuable when constipation, with hard and knotty stools, is present. Efforts at evacuation are difficult and ineffectual; mucus is nearly always present, and mercury is seldom or never indicated when this secretion is not in excess.

The genito-urinary organs are profoundly affected. mercury (preferably *merc. corr.*) is one of the best remedies for recent nephritis. The ureter, bladder, and urethra may each one (or all) be inflamed, with characteristic secretion of muco-pus. The end of the penis is particularly irritated: the smegma increases in quantity, and the itching and irritation lead the patient to much handling and pulling of the organ. Painful (nocturnal) erections and increased desire are common, but sexual power is diminished. All kinds of inflammation and ulcers of the penis are suitable for mercury, and the drug undoubtedly attacks this region with a special violence: so that as far as ordinary locality goes, the syphilitic chancre suggests mercury. But although there is often a degree of induration about the mercurial ulcer, it is rather the "soft sore" than the Hunterian chancre that is most typical of the drug. It is the secondary stage with enlarged glands, sore throat, and skin eruptions that is most likely to give a mercurial symptom-complex, and the modern method of using arsenic at once and following with mercury commends itself to the homœopathist, as far as any routine procedure can. If, however, the symptomatology as a whole pointed to mercury, the homœopathist would give the drug whatever the stage of the disease.

Sweating of the external genitals is a common mercurial symptom. In the female sex, the periods are usually times of general abdominal discomfort. As a rule the menses are excessive. Leucorrhœa is profuse, worse at night, excoriating, and the ex-

ternal parts are sore, swollen, inflamed. In poisonous doses, mercury inflames the kidneys, and the perchloride is one of the best remedies for the earlier stages of chronic nephritis. In general the quantity of urine is increased when the drug is called for.

The respiratory organs are chiefly affected in the air passages. The nasal and pharyngeal catarrh has been described, but larynx, trachea, and bronchi are all affected. The inflammation is usually accompanied by free secretion of muco-pus, and there may be ulceration. Cough and pains are worse at night. Thoracic discomfort and oppression, marked emphysematous conditions, and bronchiectasis require mercury fairly often, and in certain pneumonias, especially those that do not resolve well, the claims of the drug should not be forgotten. The clue to its successful use will be found generally in the mental condition, and in tongue and throat symptoms accompanying those of the chest. Palpitation and fainting on slight exertion are to be noted.

Regarding the special sense organs, inflammatory conditions of nose and middle ear have been described as often suitable for mercury. The eyes show a chronic, obstinate conjunctivitis, with great thickening of the edges of the lids and tendency to agglutinate (cf. graphites). Corneal ulceration is frequently well treated with mercury, and for iritis it is one of the best remedies. Naturally, for syphilitic iritis it is specially to be remembered, but also may be indicated for other forms of the disease. The perchloride, iodide, and sulphide (cinnabar) are here preferred to the metal.

Mercury causes lymphatic glands to swell. Periostitis, synovitis, and neuralgias of big nerve trunks may all be accompanied with general mercurial indication. Bone pains are deep seated, intense and worse at night. Joints are affected notably; and when the heavy sweats are present giving no relief, when every change of temperature seems to worsen the suffering, as do touch, pressure, and movement, and when the nightly aggravation of pain is

marked the drug can be given with confidence in both acute and subacute conditions and in exacerbations of more chronic ones.

The skin when mercury is indicated is often yellowish and rough, and subject to heavy sweat. Almost any kind of eruption—papular, pustular, urticarial—may be present; chronic ulcers, syphilitic or other, with hard edges and slow to heal. Discharges are excoriating.

Drowsiness is a marked symptom of mercury, as of arsenic, but the customary nocturnal aggravation of symptoms naturally disturbs the sleep at night. Dreams are vivid and generally horrible: sometimes lascivious. Patients are very apt to talk and groan while asleep.

The best antidote for over-dosing with mercury is hepar sulph., and kali iod. has value also in this regard. Silicea and mercury are incompatible. All potencies are valuable.

NATRUM MURIATICUM.

The ions of sodium and chlorine are always present in body fluids and essential to life. Sodium chloride is a substance of great osmotic power, and upon this physical property depend many of the results of large doses of it. When, however, the drug is given in potencies, these osmotic effects in no way come into play, and therefore at first sight symptoms in provings dependent on them would not seem good indications for the choice of the remedy. It is nevertheless a fact that these symptoms have real value as suggestions for the curative use of the drug, and it is probable that subjects who are sensitive to the physical effects of large doses are also sensitive to the subtler non-osmotic influence of it. It is true that orthodox opinion regards salt as inert as a remedy in itself. But Loeb and others have found in lowly

organisms that the sodium ion can have very definite effects and higher organisms (if sensitized by disease) may conceivably be influenced by potencies, when non-potentised doses would be without action. This at least would be the claim of the homœopathist, for to him natrum muriaticum is one of the most profound of remedies for chronic diseases, and the clinical evidence of its power is extensive and persistent. To admit the claim is to realise again the extraordinary change in drug-potentiality wrought by homœopathic pharmacy, for only those who habitually use high potencies value this drug greatly, although to them it is an agent employed with confident expectation of good whenever the symptoms call for it. Dr. Schulz has praised small material doses of it especially for some complaints of infants, and salt is a traditional remedy for some diseases (*e.g.* malaria), for which homœopathic experience also finds it often effective.

Frovings and clinical use have elaborated a symptom-picture for the choice of *natr. mur.* that is definite and distinctive, and there is no need to distinguish for purposes of drug choice between effects due to the physical properties of salt and those possibly due to its chemical action. If disease has modified the body in a way that can be matched by the osmotic effects of large doses of salt, that disorder is likely to be helped by the use of potencies of the remedy : inexplicable as the fact may appear, it is based upon a very prolonged clinical experience, and could only be refuted by negative experience equally careful and thorough.

Natrum muriaticum produces anæmia and is a remedy for certain cases of it. Chlorosis of a chronic kind, where red corpuscles and hæmoglobin are deficient without profound blood changes, is the most suitable form of the disease for the drug : the blood pressure is low, and when there is reason to regard adrenal secretion as deficient, the symptom-complex often suggests *natr. mur.* Exophthalmic goitre, especially if there is any degree of anæmia, also finds its

remedy frequently in this drug. Emaciation and weakness are common symptoms besides anæmia, and there is a general tendency to free watery discharges from mucous membranes as though the fluids of the blood were out of proportion to its solids—flowing easily away. The patients suitable for nat. mur. are sensitive to external stimuli, light, heat, etc. The circulation being poor, they are chilly and lack vital warmth, but also they greatly need air and resent close rooms and overmuch external heat of any kind.

The temperament that suggests nat. mur. is a melancholic one. Patients weep readily, and find it very difficult to take pleasure in anything. With their depression, however, they are irritable and apt to quarrel with any attempted consolation: they are averse from company and better alone. The causes of depression are much more often personal and emotional than those of physical suffering or misfortune. Unhappy emotional experiences (*e.g.* disappointed affection) are apt to give rise to mental conditions that are helped by this remedy. Candidates for it much dislike to be pitied, and conceal the cause of their troubles, though the mental depression is obvious enough. There may, however, be outbursts of rather hysterical mirth, and both hysteria and hypochondriasis may find a remedy in nat. mur. Dr. Clarke makes the observation that the depression varies proportionately to the degree of constipation, and nat. mur. produces (and cures) a definite type of constipation.

Nat. mur. is one of the most prominent of headache remedies, and the symptom-complex that calls for it is seldom without this feature. Typically, the pain is very severe, throbbing and hammering, incapacitating from any mental work. It begins about 10 a.m. (the time of aggravation of nat. mur. is usually from 9 to 10 a.m. for all symptoms) and goes on into the afternoon: often vision is affected at the beginning, and flashes of light ("fiery zig-zags") are seen. It is made worse by heat and relieved by fresh air. Eye-strain headaches persisting after correct

glasses have been given, or due to over-use of normal vision, often indicate this drug. There is some periodicity about the times of recurrence of these headaches.

Eye symptoms are prominent. The subjective sensations with the headache have just been mentioned, but Burnett's attention was drawn to the statement that young horses reared on certain salt marshes developed cataract, and on this hint he employed nat. mur. in this disease, and he and others have claimed considerable success for it. The conjunctiva is chronically inflamed, and the lids thickened and ulcerated (cf. graphites) in many nat. mur. cases, and the lachrymal secretion much increased.

The appearance of the face is often enough to suggest this remedy. Characteristically it is yellowish, pale, earthy, and greasy looking. The lips are dry and cracked or ulcerated: in febrile complaints or coryzas, labial herpes is common. Acneiform eruptions are also frequent, and there is a profuse watery coryza, leaving the nostrils sore, chapped, or ulcerated. The nose feels obstructed, hot, and uncomfortable. The mouth also is frequently subject to chronic inflammations and small ulcerations, and may be cracked or deeply fissured. Tingling and numbness about lips and tongue should be noted. The tongue is stiff and dry, with a patchy appearance (what is often called a "mapped" tongue): frothy saliva is frequently seen along the sides of it. In spite of the dryness of the tongue, saliva is usually copiously secreted.

There is a more or less continuous thirst, dependent somewhat on the constant desire for salt. Bread is either much liked or entirely disliked: fats and fatty things are loathed. The appetite is variable. After food there are empty risings, nausea, and waterbrash, and a general sense of impaired digestion without great or persistent pain. The splenic region is often the site of symptoms, and some splenic disorders have seemed to react to nat. mur. There

is some general flatulence and usually marked constipation with hard, dry, crumbling fæces, evacuated with much straining and effort. Occasionally there is a profuse watery diarrhœa, often painless, and coming characteristically about 9 a.m., or constipation and diarrhœa may alternate, for patients who are better for fasting or taking very little food are good subjects for natrum muriaticum.

Nat. mur. is a frequently indicated remedy in enuresis. The urine is increased and the sphincter weak, so that in women a cough may lead (as with ferr. phos. and caust.) to involuntary passage of some of the bladder contents. The general state of weariness and exhaustion is reflected in the sexual sphere, where lack of desire or ineffective desire is frequent. In women there is often sterility: the menses may be profuse or scanty, but are seldom normal, and the depression and headache are apt then to be especially severe. As a rule desire is lost. Leucorrhœa if present is watery and profuse: there is an absence of the normal vaginal secretion in many cases. The backache, which is characteristic and common, is severe, affecting mainly the sacrum and lumbar spine, and much relieved by pressure, *e.g.* lying on something hard. Other aches and pains in the limbs are very common. They are not often persistently localised, and are of a weary, tiring character, and made worse by any prolonged exertion. They amount to symptoms of a general neuro-muscular fatigue. Corns and warts and skin thickenings are frequent, the nails are often unhealthy: wounds heal slowly; and urticarial, vesicular, and miliary rashes are apt to appear, besides facial acne. The margins of the hair are a characteristic site for this. The skin is often dry, though in febrile conditions come sour-smelling perspirations, which temporarily relieve the patient.

There are violent palpitations and throbbings of the heart and cardiac pains in most patients who need this remedy. A sense of coldness in the precordial region is characteristic. Clinically, nat. mur.

is frequently found indicated in chronic morbus cordis, and has so often improved even very severe cases that the homœopathist is bound to credit it with a profound action on heart structures and disease conditions. The pulse is quickened, but of low tension. The use of natrum muriaticum in Graves' disease has been mentioned. Certain chronic catarrhs, particularly of the upper respiratory passages, are helped by it when other symptoms correspond.

This drug is usually (and best) prescribed in chronic diseases where the mental and general symptoms suggest it. When acute cases have reacted well to bryonia, nat. mur. very often can be given to ensure complete recovery, but otherwise it comes to be thought of mainly in anæmic, tired-out, enfeebled conditions, with the characteristic headache and constipation. Such states may be due to more than one chronic disease. Particularly in malaria that has not responded to ordinary treatment is this drug useful. The aggravation from 9 to 10 a.m. is then of importance, and in the paroxysm the cold stage is severe and long. There is thirst throughout and the sweat relieves considerably, though there is much debility between the attacks.

Many forms of neurasthenia need nat. mur. In Addison's disease it sometimes seems to help, and any adrenal insufficiency is a hint for its use. Indeed, its value lies less in its influence upon this or that tissue than upon its profound effect upon the deeper metabolic processes. As yet we have not the knowledge requisite to state precisely the nature and limits of its action, for the threads of the complex web of interacting forces that make up in their totality the life of an organism are not easy to trace. But provings and clinical experiments convinced (and still convince) homœopathists that the drug has a profound, harmful influence on the healthy when given in large doses and a profound curative influence on certain sick persons in minute doses. Acting on the principle of the choice of remedy by similarity of symptoms, a drug can be selected for a

case of chronic disease although the full details of the metabolic defects in the patient are not known any more than the full details of the effects of the drug on the healthy. Let it not be for a moment imagined that the homœopathist despises such knowledge. On the contrary, he welcomes every experiment, every hint, that can elucidate in the least degree the puzzling pictures of chronic disease. But when the (largely) unexplained symptom-complex of a drug pathogenesis matches the (largely) unexplained complex of a case of disease, he assumes that similar, if unknown, processes are at work in each instance, and expects that the drug in a small dose will affect favourably the disease condition which so resembles the one which it itself can produce in large dosage. The assumption is justified in practice sufficiently often to make the homœopathic rule a valued guide to the careful physician.

As already mentioned more than once, nat. mur. follows bryonia very well. It also continues good effects begun by ignatia and apis, if these drugs begin to lose their power. Nat. mur. antidotes the ill effects of excessive use of nitrate of silver. It is almost exclusively used in spaced-out doses of high potencies, though Dr. Burnett used the 6th centesimal daily with success.

NUX VOMICA.

Tincture or Trituration of the Seeds of the Strychnos Nux Vomica plant.

Strychnine and its analogue brucine are the chief active principles of this drug, but for homœopathists nux vomica tincture possesses qualities and powers that are not all represented in its alkaloids, and since our provings are of nux vomica it is to that homœopathists turn. They value precision of indication far beyond concentration of drug power, especially when the concentration involves a certain limitation of range. There are other alkaloids that resemble

strychnine, notably gelsemine; and gelsemium and nux vomica have certain interesting points of comparison, although to the homœopathist they have mainly different, even opposing, indications. It will be valuable first to consider strychnine as it appears to the sceptic in homœopathy, for it is a much used drug, and there is no reason why the homœopathist should not, if he chooses, avail himself of its possible virtues. It is held from experiment and observation that the main action of the poison is upon the spinal nervous system. The special senses are rendered more acute by small doses: for touch, taste and smell the cause of these results is probably central, but an action on the retinal cells may be, partly at least, responsible for the effect of the drug on vision. Homœopathists, it is perhaps needless to say, regard heightened sense perceptions as one of the indications for nux vomica, and night blindness has been successfully treated with it. Small doses of strychnine delay the onset of fatigue and increase the capacity for muscular work. This power of the drug is made use of to tide patients over emergencies and as an emergency measure has a certain value of which homœopathists can on occasion avail themselves. But it is important to remember that this action does not mean that the increased energy is obtained miraculously, without paying for it, but merely that payment is deferred. This is the universal comment to be made on all effective drug action (homœopathic or other): it can only be effective by the utilization of natural reserves of power. It is quite sound practice so to utilize them to defeat disease, leaving them to be reconstituted in the peace of convalescence, but the homœopathist who aims at meeting the "totality" of a case is chary of regarding only one symptomatic need so long as he hopes to meet the whole. The action of strychnine on muscular energy may be used to help, for instance, respiratory distress, but unless something can be done to remove the initial cause of the distress the effect of the strychnine can be but a temporary palliation of a

symptom. It may, however, be essential to do this, and strychnine is an agent for the purpose. In poisonous doses strychnine causes convulsions of spinal origin. They are reflex, being only produced in response to a sensory stimulus, but as reflex sensibility is much heightened, the lightest stimulus avails to initiate convulsions. It is the change in response to external stimuli that is the essential effect of strychnine.

Probably all efferent nerve impulses from the spinal cord are partly motor (to the appropriate muscles) partly inhibitory (to opposing muscles): in strychnine poisoning the inhibitory factor seems to be cut out so that *all* the muscles contract (the contraction is always maximal, whether the stimulus be weak or strong), and the resultant movement depends on the relative strength of the muscle groups. After some tremors or twitchings all the muscles in the body contract violently, and remain so contracted for a time, with the subject cyanotic from cessation of respiration: prostration follows, then further spasms. ultimately death occurs in fatal cases from asphyxia, the respiration failing to return after a spasm, or the state of prostration going on to respiratory failure. Before the general convulsions set in there is usually preliminary spasm of certain muscle groups, usually about the jaw and the neck. The general effects may be thus explained: An impulse reaching the cord may there take a number of paths, arousing different motor cells to activity or inhibition; the influences that cause "spreading" of an impulse may be figured as varieties of resistance, and the result of their interference is normally a co-ordinated movement. Under strychnine these resistances are greatly reduced, the impulse passes along all the motor paths more strongly and calls for a stronger reaction from the motor cells. It is also possible, though not certain, that strychnine affects motor cells directly. The resulting violent contractions are not co-ordinated. Medullary centres are affected as are spinal centres.

Depression and paralysis follow the violent stimulation of strychnine. Indeed, depression is mixed with stimulation very soon, and greater fatigue is in evidence under strychnine than normally, though its appearance is delayed. This is a very important point to remember in using strychnine as an emergency agent. To spur the tired horse is proverbially an apparent remedy that often leads sooner to disaster.

When the effects on the respiratory nerve mechanism are alone considered, it is found that respiration is quickened by small doses, but if persisted in, the drug finally paralyses the centre. The heart is little affected directly. Small doses stimulate the vasomotor centres, but larger doses soon produce opposite effects. In the alimentary canal strychnine, like most bitters, stimulates the flow of saliva. The increased muscular activity resulting from the use of the drug causes increased body heat: glycosuria appears in small mammals, and glycogen disappears from liver and muscles. Both these effects are no doubt secondary to the effect on muscles and respiration, and no homœopathist would from this expect the drug to be of any special value in diabetes, where the causation of the glycosuria is so much more profound.

This in outline is the action of strychnine as it appears to non-homœopathic physicians. One disease would seem obviously to call for it homœopathically, and that is tetanus.

It is of considerable interest that occasionally this drug has been used for this disease by non-homœopathists, though its symptomatic similarity is unmistakable; certainly it would appear well indicated to any follower of Hahnemann. Good results have been reported from it, but it is difficult to collect enough cases for certainty, especially as at different times and places the virulence of tetanus seems to vary considerably. It is not the only remedy that homœopathy might find suggested. Hydrocyanic acid has claims from its provings, and gelsemium (it is interesting to recall that the alkaloid of this

drug is an analogue of strychnine), and in general homœopathists would not feel helpless in face of the disease for want of implements to test their therapeutic method. But the recent extensive experience with anti-tetanic serum has brought out some points in the disease which are worth a comment. The great value of the serum has been as a prophylactic ; as a remedy for the established disorder it has been in most cases a failure. In other words, once the toxin has become fixed in the spinal cord it is all but impossible to detach it or neutralize it. But the symptoms that resemble those of strychnine poisoning are the signs of the toxin fixation in the cord : in other words, they are "ultimate" symptoms, and by the time they appear the curable stage is for most cases past. The homœopathist should deduce the conclusion that the value of strychnine *ought* to be greatest *before* the characteristic spasms appear, the drug, as it were, occupying or fortifying the susceptible parts of the cord and so preventing the toxin from making good its attack. If the anti-toxin were not available, such a prophylactic use of strychnine would be at least worth a trial, but seeing that the value of the serum has been well established, it would hardly be wise to neglect its certain claims for the more or less problematical ones of strychnine, and if strychnine treatment were combined with the use of serum in prophylaxis, very long comparative series of cases would be needed before any valid judgment as to the value of the drug factor could be made. However, the convinced homœopathist, working on the basis of his method, would do well to combine nux vomica or strychnine with anti-tetanus serum (withholding for a time any dogmatic assertion as to its value, but using it as a possible help), and in the event of a definitely established case to treat, then strychnine would rank high among the drugs to consider.

Nux vomica has been well proved and much used, and the moment the field of homœopathic therapeutics is entered the crude outline of poisoning and

animal experiment takes on colour and shading, and with precision in its application the remedy becomes a very valuable one. The spasm and the increased sensitiveness which are so clear in the pathogenesis are naturally most important features from the homœopathist's point of view, and unless both are present in some degree nux vomica is not likely to be indicated. The spasm may be of voluntary or involuntary muscle ; indeed, therapeutically, spasm of bowel, bladder, or rectum is a very common symptom calling for the drug, while irritability and sensitiveness combine to heighten the effect and frequency of the muscular contractions.

If aconite may be truly described as the drug of "anxious tension," nux vomica is pre-eminently the drug of "irritable tension." The irritability appears in the mental sphere ; subjects suitable for the drug are apt to be zealous and precise, prone to anger (especially to fits of excited temper), overbearing and ardent. They are often actually spiteful and malicious ; this, at least, is the direction into which their temperament tends to degenerate. Nux vomica is a drug for the highly civilized races, for town dwellers, and those who under the stress of modern life develop both physical and mental symptoms. They are often sedentary brain workers, more inclined to the waste of nervous tissue than of muscular, persons who get through their work largely on stimulants, addicted to the use of tea, coffee, alcohol, or are drugged subjects. Nux vomica is one of the best of antidotes for drug or alcohol taking (including medicine taking, purgatives, and patent preparations). Its subjects are more often thin and choleric than fat, nervous and melancholy in times of reaction from anger or excitement. The loss of nervous energy for which nux is suitable is the result of excessive waste, and without a history of past excitement the remedy will seldom benefit. They are apt to call themselves "bilious" ; they suffer from indigestion of a type to be described presently, they are addicted to condiments as well as to stimulants, and are often

debauchees. But the nux vomica type is rather the Renaissance tyrant (Eccelino or Malatesta) than the heavy-jowled Nero type. The irritability may carry the patient to the verge of homicidal or suicidal impulses, but in its characteristic quality of suddenness and intensity, there is a certain "spasmodic quality" about even those mental symptoms.

Spasm plays a notable part in the symptomatology of nux in other bodily spheres. In the alimentary canal, for instance, appears one of the most distinct of all nux symptoms, a constipation characterized by frequent desire for stool which is nevertheless ineffectual. That is to say, the normal peristaltic rhythmic contraction is replaced by spasmodic contractions which cause pain but are not effective in forwarding the passage of the bowel contents along the tract. Sometimes a patient will require nux in whom there is diarrhoea ; but then it will be found to be sudden, perhaps involuntary, and represents a more violent degree of spasmodic contraction sufficient to cause untimely evacuation. These contractions are very painful, and the pains are generally worse from pressure but relieved for a time after evacuation : the stool is often hard and large, but even when small there is the same difficulty in getting an effective clearance, and a tenesmus after stool which suggests to the patient that the bowel is only partially emptied.

Another result of this spasmodic peristalsis is an interference with the circulation in the bowel, and consequent hæmorrhoids. In nux patients these generally bleed freely ; indeed, as will be seen presently, hæmorrhage characterizes the pathogenesis of nux vomica in other ways. These spasms of the bowel are very likely to occur in cases where a hernia has suddenly been forced through inguinal or femoral ring, the irritation of the pressure causing spasms which tend to aggravate the condition and so induce strangulation. Now, it need hardly be said that it would not be sufficient treatment for a strangulated hernia merely to administer nux vomica, but the

administration of the remedy before strangulation frequently makes much easier the task of reduction.

In the upper part of the alimentary canal it is to be noted that the tongue in *nux vomica* cases is usually heavily coated and often dry and uncomfortable. There is a "scraping" sensation in the throat, worse from swallowing, and salt or sour taste in the mouth, or a bitter and unpleasant taste. Often all food is insipid, and a dislike is taken to meat, bread, coffee, or to tobacco, though as a rule before the disease has begun, the subject likely to need the drug is fond of meat and stimulants of all kinds, and of tobacco. This is one of the few drugs wherewith appears a liking for fat food. In this, as in so many features, *nux vomica* and *pulsatilla* are diametrically opposed.

Heartburn and pyrosis are common symptoms in *nux vomica* cases, nausea and empty straining or periodical vomiting. *Hæmatemesis* may appear, but it rather suggests the bleeding of cases of gastro-stasis than of gastric ulcer, the "hæmorrhagic" powers of the drug being exemplified here. Pain in the stomach begins characteristically some time (often hours) after the meal: it is a sensation of pressure and colicky pain with considerable flatulence and great desire to loosen clothing; it arises in fact from the characteristic spasmodic peristalsis, which accounts also for the constipation. Hiccough (again a spasm) is common.

Redness and burning of the face (especially of the nose) after meals is a *nux* symptom, and frontal headache after meals. Indeed, a flushed face is rather characteristic of the drug. There is often hunger and yet aversion from food. Gastric complaints that are relieved by it are not so much inflammatory as states of dyspepsia and irritation, especially such as follow the immoderate use of condiments or of alcohol, and it is the spirit drinkers rather than the beer drinkers whom *nux* helps. The latter are more likely to require *kali bichrom*.

The sensitiveness of *nux* subjects is shown by a

tendency to faint easily from strong odours, from sudden pain, from straining at stool, from vomiting.

In the sexual sphere, desire is increased and very slight stimulus excites it. Labour pains are violent and ineffectual. The period in women is too profuse and too early, and accompanied by cramping pains and tendency to faint. It may be followed by thick yellow acrid leucorrhœa.

In the respiratory sphere, *nux vomica* produces little catarrh, although it reproduces well the features of a "stuffy" cold in the head, with congestion and obstruction but little discharge, and cures such cases readily. It is also responsible for a kind of asthmatic condition and is of great value in asthma. A dry, persistent, fatiguing cough, causing a splitting headache, is characteristic. In asthma cases the paroxysms will probably be worst about 3 a.m., for this is a marked time of aggravation of the drug. This marks, too, its value in sleeplessness, which is considerable whenever the patient complains that he or she falls asleep quickly but wakes at 3 a.m., tosses about for hours, and at last falls asleep again just before it is time to get up. The result of unbroken sleep (day or night) in a case that indicates *nux* is always favourable, and it may be said of the drug that its subjects are worse when sleep is disturbed, better after undisturbed sleep.

Nux vomica does not produce any characteristic skin eruption, but violent and uncontrollable itching is a marked symptom of it.

Patients who benefit by this remedy are generally chilly, cannot get warm, sensitive to cold and desiring heat ; worse in winter, subject to chilblains and cold, blue extremities. Damp troubles them much less than cold ; indeed, they may often be better in wet south-west weather.

The spasmodic quality of the drug suggests its use in all varieties of violent muscular contractions, *e.g.* strangury, biliary or renal colic, etc., and when the general symptoms also agree in calling for it, it will speedily help, but as a rule there is a considerable

prominence of alimentary canal symptoms in the cases that need *nux vomica*. It is particularly suited to those who are meat eaters and stimulant or drug takers. Zinc is inimical to its action. It follows sulphur well and aconite: *sepia* may be regarded as its nearest analogue among drugs of a very profound and long-lasting action. *Nux vomica* may be of considerable value in chronic diseases but requires some supplementing as a rule before a cure is obtained.

PHOSPHORUS.

Saturated solution in absolute alcohol and potencies therefrom. Triturations of red amorphous Phosphorus.

This element, being exceedingly poisonous to the human body, has correspondingly been a valued remedy to homœopathists ever since their guiding principle was recognized, but to non-homœopathic medicine its worth is comparatively small. A century or so ago, however, it was credited with extraordinary remedial properties (without any clear realization of the only method by which they can be fully utilized), and it has retained for the laity ever since an almost magical reputation. It is an essential element in the body structure, both in bone and in nerve tissue, but it is its presence in the latter that is responsible for its popular reputation, and there is a market for any preparation that can plausibly suggest that it will supply the system with extra stores of phosphorus. It will be seen presently that on the homœopathic principle it is often indicated in conditions which may accompany nerve strain and nerve diseases, so that no follower of Hahnemann would doubt that these preparations may have a high degree of usefulness at times, though their indiscriminate employ-

ment is to be deprecated and their dosage is unnecessarily large.

Phosphorus poisoning is not uncommon, and there is much knowledge available concerning its gross effects on body tissues. These may well be considered before proceeding to the study of the provings.

Phosphorus is not readily absorbed, and unless finely divided quite large quantities may fail to have a fatal effect ; but one or two grains may prove a lethal dose if absorption is achieved. Phosphorus vapour is absorbed by the lungs, and phosphorus is readily taken up from oily vehicles. Water will only dissolve the merest traces. The red amorphous phosphorus being less volatile and soluble is much less poisonous than the common form of the element which is now (after a delay scandalously long) forbidden for the manufacture of matches. The chronic poisonings that used to result from match making were due to lung-absorption of the vapour and the local necrotic effect of the fumes upon the lower jaw was also frequent. Applied to the skin, phosphorus causes severe burns, but no systemic poisoning follows.

It is to the effect of the element (which has been detected unchanged in the blood after poisoning) that tissue changes must be attributed, and not to the power of oxygen or hydrogen compounds of it. It does not coagulate albumen in solution and has no immediate irritant action when swallowed ; but some hours after being taken into the stomach, pain and discomfort begin, followed by nausea and vomiting. Diarrhoea is less common, but occurs sometimes. These gastric symptoms may persist, but often disappear, especially if measures are taken to wash out the stomach ; but already enough of the poison has been taken to affect the liver (upon which the main action is exerted), and after an interval of quiescence of a few days, pain recurs and extends to the liver, which is enlarged, vomiting returns, generally containing blood, other hæmorrhages occur from nose, bowel and uterus ; extravasation of blood under the

skin, collapse and coma close the scene. Albuminuria may appear early with fatty casts and fat globules: hæmaturia is common. Near death the secretion of urine may cease. Very noteworthy is an increase in the nitrogen elimination, in spite of the diminished food absorption. It appears mainly as ammonium lactate, and would therefore seem to indicate excess formation of lactic acid in the tissues: but other nitrogenous constituents of urine are also increased (*e.g.* leucin and tyrosin). Phosphates are increased not from the poison taken so much as from increased tissue waste, and sulphates also rise. Homœopathists find that those who do well on phosphorus, frequently have a great craving for salt, as though possibly in need of extra chlorides. No stress has been laid hitherto by investigators on increase or decrease of chlorides in the urine of cases of phosphorus poisoning, but the clinical symptom of craving for salt is a good indication for the remedial use of the drug. Retention of chlorides is seen in pneumonia, and phosphorus is one of the remedies most frequently indicated in cases of that disease.

Fatty infiltration and degeneration of cells, especially of liver, kidney, and stomach and intestinal glands and muscles of heart and arteries are the essential effects of phosphorus poisoning. As the liver cells become full of fat they swell or press on the bile capillaries, and from this obstruction some degree of jaundice occurs. The glycogen of the liver is broken up with formation of lactic acid. The fatty degeneration of the kidney may give rise to albuminuria. The fatty degeneration of the heart muscle counts for something in bringing about the fatal termination of cases of chronic poisoning. Other muscles may be affected. The central and peripheral nerves are little changed in poisoning cases. The fatty degeneration of the arteries (and possibly also the loss of fibrinogen from changes in intestine and liver which render the blood less coagulable) accounts for the numerous hæmorrhages characteristic of phosphorus poisoning (*e.g.* hæma-

temesis, hæmaturia, subcutaneous purpuric hæmorrhages, etc., etc.). The bone marrow in chronic poisoning becomes more active at first, and red corpuscles of the blood increased after small doses of phosphorus. With larger doses the bone marrow degenerates, and both red and white corpuscles ultimately diminish in numbers.

The simplest explanation of the fatty degeneration caused by phosphorus is that it is an acceleration of a normal process and an autolysis, but that the accelerated distinctive metabolism is not completely carried out, so that the products of the incomplete combustion (leucin, tyrosin, lactic acid) appear in the excretions. Similar effects are found from chloroform poisoning, and are attributed to a similar cause : in yellow fever and acute atrophy of the liver, disease reproduces even more violently the pictures of these drug intoxications. The resemblance between the toxic effects of phosphorus and chloroform would suggest to the homœopathist the use of small doses of phosphorus as a remedy for chloroform poisoning. Unfortunately, the latter illness, when it occurs as the result of anæsthesia, is often so sudden and overwhelming that no remedy has much opportunity or time to develop its action. It would be wiser to give phosphorus as a prophylactic, if there were any means of determining beforehand the subjects likely to be poisoned by chloroform ; and even though the cases of poisoning are very rare, it would do no harm to make a routine practice of giving a dose or two of phosphorus as a preliminary to chloroform anæsthesia, preferably twelve hours beforehand. It is needless to state that only by pursuing this method for hundreds of cases would it be possible to come to any valid conclusion as to whether or no the number of cases of chloroform poisoning were thereby diminished but to administer a dose or two of phosphorus would add nothing to the seriousness of any patient's condition, and it might conceivably lessen the risk of a catastrophe from the anæsthetic.

There are two other noteworthy effects of phos-

phorus to mention before turning to the provings. Repeated small doses cause proliferation of the interstitial connective tissue of liver (especially) and kidney, and can produce typical cirrhosis of both organs. It is not certain if it is a sequel to the necrosis of the actual liver and kidney cells, or a specific irritant effect on the connective tissue, but the fact that commencing cirrhosis of both organs seems to be very favourably influenced in many cases by phosphorus in the hands of homœopathists would suggest rather the latter than the former explanation.

Some years ago Wegner described the effects of minute doses of phosphorus on the bones of young animals, as amounting to a stimulant to the osteoblasts and increased formation of dense bone. This process he maintained to be followed by gradual absorption of cancellous bone and further dense bone formation, not only from cartilage but from periosteum also. Kassowitz, however, took a different view of the process: using larger doses, he produced appearances closely resembling those of rickets, a significant observation in view of the use of small doses of the drug for this disease, which is a practice not only of avowed homœopathists. As yet, while all observers admit a specific action of phosphorus on bone, there is not entire agreement as to its interpretation. By this specific action, however, the familiar necrosis of the jaw is explained: it is not the local irritant action of the vapour that is responsible, but the effect on the bone of the drug absorbed, for other bones (femur, radius, etc.) become more fragile; the jaw by this action has its resistance to infection lowered, and then if tubercle germs obtain access through a diseased tooth or sinus, caries ensues.

There is a sequel of some interest to these observations. Experiments by Wheeler and Neatby (*Journal of the British Homœopathic Society*, 1907) pointed to a marked influence of phosphorus upon the opsonic index of the blood to tubercle germs in both these observers. In one case repeatedly the index was

found to rise for a space of days after administration of the 3x potency.*

In the other case a single larger dose produced a typical opsonic curve with a preliminary fall (negative phase of Sir Almroth Wright) and subsequent marked rise. In this case a parallel estimation of the index to micrococcus neoformans showed no change, suggesting that the influence of phosphorus was specific for tubercle. Since these experiments were made, much doubt has arisen as to the accuracy of opsonic measurements, but at least the evidence seemed clear and precise in pointing to a drug effect and if the coincidence of all the index estimations is to be read as accidental, it is a very remarkable phenomenon. Assuming that it does indicate a specific influence† upon the body resistance to tubercle, it must further be admitted that phagocytosis does not appear to be the essential feature of this resistance, and that therefore the drug effect may appear beside the mark. But phagocytosis is so intimately associated with body resistance in general that it is difficult to avoid regarding any heightening of it as significant, at any rate to some extent. When in addition there can be noted the suggestion that phosphorus in poisonous doses *lowers* the resistance to tubercle and prepares the way for caries, any evidence that the same drug in smaller quantity *raises* resistance is more credible. Finally, the homœopathist caps both suggestions with the result of clinical experience, showing how frequently the symptom-complex of tuberculosis indicates phos-

* The estimations of the index in all instances were made of course by an assistant absolutely unaware of the times of administration of the drug, so that the element of anticipation in the results can be eliminated. The estimator never knew if the result he handed in would confirm or deny the influence of the drug.

† An influence that is upon these two particular investigators. One of them at least would seem to any homœopathist a likely subject to respond to phosphorus. It is not inconceivable that for different subjects different remedies would be required to encourage the mechanism that raises the index. Arsenic and phosphorus have close resemblances in their poisonous effect on the body, and conceivably arsenic might affect the index in some individuals, though upon the one of these experimenters who tried its power it had no such effect. No homœopathy worthy the name can exist without the most minute individualization.

phorus and how frequently the drug appears in such cases to do good : so that as far as it goes the experimental evidence justifies the choice from the general symptom similarity.

Phosphorus is a well-proved drug and homœopathists have ample material upon which to base their selection of it.

Taking first a survey of the general characteristics of the drug, it is found to be particularly suitable to diseases at the time of adolescence. Subjects susceptible to it are often delicate-looking and rapidly growing (outgrowing their strength, as popular phraseology has it) : they may be tall but are fragile in appearance, narrow-chested, inclined to stoop, anæmic in complexion. There is a particular pale, lemon-yellow tint that suggests phos. at once to a homœopathist. It is almost entirely due to anæmia, but if slight jaundice accentuates it, the claims of the drug are enhanced. In colour, phosphorus subjects are often fair or red-haired, quick, lively, and sensitive. They are even hyper-sensitive to psychical impressions, nervously excitable, likely recruits for new causes. Nevertheless, while likely to be roused to excitement over some new idea or emotion, they are as a rule apathetic and even slow to life in general. It is rather a condition of indifference to surroundings and occupations broken by flashes of excitement and enthusiasm that is characteristic. One of the most prominent emotions is fear—fear of being alone, fear of the dark, of thunder, fear of illness or death. The patient may be haunted by all sorts of imaginary things (*e.g.* horrible faces). These impressionable individuals are apt to take fire easily and show anger, though not persistent rancour. They are restless, easily made anxious : cannot sit or stand still for a moment. Twilight and darkness affect them unfavourably. They may fly into tempers with their friends for little cause, but cannot bear to be left alone. The special senses show the hypersensitiveness of the temperament. Photophobia is often marked, and smell

(and sometimes hearing) abnormally acute. Objective nerve symptoms abound, as is not surprising, in view of the profound effects of the drug. Spasms, twitchings, and especially fibrillary twitchings, concern the motor nerve mechanism, while numbness, formication, pain, show sensory interferences. Co-ordination is often defective, and, with the numbness of the feet and pains resembling lightning pains, the drug is sometimes suggested in locomotor ataxy. But a phosphorus symptom-complex is more apt to appear in nervous conditions following excess, or overwork, or hæmorrhage, or prolonged suppuration, or, again, after apoplexy. The spine in patients that call for phosphorus is frequently the site of burning pain, a sense of heat which seems to travel up the back into the head to the vertex. (Picric acid shows the reverse direction for the symptom.) Phosphorus is often indicated in severe nervous disease, cerebral softening, post-apoplectic conditions, myelitis, polio-myelitis, less often in disseminated sclerosis, and often in the rarer disease pseudo-hypertrophic paralysis. In every case, however, the whole symptom-complex should be considered. Burning pains are nearly as characteristic of phosphorus as of arsenic or sulphur: the palms of the hands burn, or burning sensations occur in patches (*e.g.* between the scapulæ or in the abdomen).

In spite of these burning pains, the subjects suitable for phosphorus feel the cold very much, and external cold aggravates many symptoms. Thus, cough will be excited on going from a warm to a cold atmosphere. (The reverse is true of bryonia.) Nevertheless there occurs a burning pain in the stomach that makes the patient desire cold food and drink, and very characteristic is the condition when food is vomited after it has been swallowed a little while and become warm.

Phosphorus subjects (as already noted) have a great desire for salt. Their metabolism appears to need excessive quantities of it.

The tendency of the drug to cause all kinds of

hæmorrhages has been brought out in the description of poisoning cases. To the homœopathist it is a most useful indication: hæmorrhages from every and any surface, from lung, kidney, bowel, subcutaneous hæmorrhages, and excessive periods—all of these are phosphorus symptoms, and one or more of them may give the deciding voice for the remedial use of the drug.

Phosphorus is on the whole a right-sided remedy and more suitable to complaints (*e.g.* pneumonia) in the right side. The patients are often unable to lie upon the left side and relieved by lying on the right, a curious symptom difficult to explain, but when present a good indication.

Movement generally worsens the sufferings, in spite of the restlessness. Lying down (except on the left side) relieves. But the chief time of aggravation is from twilight to midnight, so that early sleep is very disturbed.

Mental exertion, worry, and sensory stimuli (noises, light, even music) are apt to bring on symptoms of distress in phosphorus patients. These may take the form of headaches, neuralgias, etc. Grief, emotion, anxiety are all apt to be felt excessively.

The photophobia of phosphorus is often more than mere hypersensitiveness, for the drug has a deep action on retina, choroid and lens as well as cornea and conjunctiva. For early cataract, for retinitis and glaucoma it may have real value. Its action on the kidney would confirm its use for albuminuric retinitis.

In the genito-urinary tract, besides its power to cause nephritis, which makes it especially useful in early cirrhosis of the kidney and in lardaceous or fatty degeneration, it influences the sexual organs of both sexes. Desire is increased usually to a considerable extent (even to nymphomania), but sexual power is apt to be deficient. The menses are profuse and too early. Pains and inflammations, even abscesses in the breasts are prominent among the local symptoms of phosphorus.

The effects of phosphorus on the bones have been already noticed under the description of Phosphorus poisoning. The homœopathic provings are full of symptoms of joint and bone pains. Joints are notably stiff, more stiff than painful. Hip and knee are specially affected. Caries is naturally a condition suggesting the use of the drug, and it has seemed to help exostosis and other bony tumours. Pains (burning), cramps, numbness, weakness and inco-ordination are phosphorus symptoms.

The skin is subject to subcutaneous hæmorrhages : phosphorus is the first drug suggested by purpura, though crotalus affects the blood (and liver) very similarly. Obstinate ulcers and scaly and pustular eruptions are noted in the pathogenesis, an excessive sweating (especially night sweating) is common.

The alimentary canal symptoms are of high importance. The lips are dry, parched and cracked or ulcerated. The gums bleed readily, and pyorrhœa is very likely to be present. The mouth and throat are dry and perhaps ulcerated or bleeding : the saliva is viscid, the tongue dry, brown generally in the centre, less often white or yellow, so dry and stiff that speech is difficult. There is often a sweetish taste in the mouth and a craving for salt may be profound. Hunger is common, abnormal desire for food and feelings of faintness if food is delayed ; hunger persists at night, and sinking, empty sensations affecting chest and abdomen. With the hunger great thirst, but cold (or even iced) water is longed for, as it seems to allay the burning in the stomach. Hot food or drinks worsen the condition at once. Cold water (and cold food) are well taken, but after a little while, when they become warm, they may be vomited. Vomiting is often a kind of regurgitation : food may be thrown up in mouthfuls. Acidity seems to be increased, and sour eructations are the rule : nausea, burning pain, pressure, distension, hiccough, and waterbrash all testify to the deep disorder of the stomach. Hæmatemesis (less from ulcer than from oozing of blood) may occur.

The abdomen is usually exceedingly sensitive when phosphorus is indicated, though tactile sensitiveness elsewhere is not specially marked. It is associated with pain in the liver region, enlargement of the liver and often of the spleen, and some degree of jaundice. Early cirrhosis and other liver diseases may find an effective remedy in phosphorus. The morbid anatomy of poisoning by the drug gives the homœopathist good grounds for its use in yellow fever or acute yellow atrophy. *Crotalus* has similar effects and uses.

The bowel becomes distended, and pains and colic are usual. The stools are often very characteristic. Often they are loose, profuse, watery, very exhausting, but painless: they contain blood, mucus, shreds, undigested food. These stools may be passed involuntarily, and the anus remains open, the sphincter being more or less paralysed. Hæmorrhoids are large and protruding and bleed freely. In less acute conditions there is often constipation, and the stool is only passed with great straining, and is long, dry, and narrow, not bulky.

The heart symptoms are largely subjective and aggravated by the temperament and emotions. Palpitation, faintness, dyspnœa, are observed. The pulse is small and of low tension. The anæmia produced by phosphorus is profound, and the drug is not only curative when general symptoms correspond in chlorosis, but often modifies favourably the anæmias of profound disease (cachexia, lardaceous disease, tuberculosis), and is one of the most hopeful suggestions for leukæmia, pernicious anæmia, etc., though unless in very early stages it must be owned that no remedies are very promising in these diseases. It may be repeated here that lowered coagulability and tendency to hæmorrhage are susceptible to the action of phosphorus whenever the general symptoms of the case match those of the drug pathogenesis.

The respiratory tract presents many symptoms in the provings, and phosphorus is one of the most

valuable drugs for larynx and lungs. Hoarseness and aphonia, spasmodic, dry, tickling cough, great laryngeal pain and sensitiveness, aggravation of cough from cold air, from talking or from laughing, paroxysmal cough causing vomiting—these are the characteristic features to be looked for in laryngeal or tracheal disease. The effect on the lung is indicated by pain, dyspnœa, expectoration of blood and mucus or viscid muco-pus. Heaviness, fulness, and tension of the chest are experienced. Spasmodic asthma has been helped and emphysema, but it is for right-sided lobar pneumonia that phosphorus is especially valued. Broncho-pneumonia cases may indicate it, but it is usually in lobar pneumonia that the symptoms call for it, and in early tuberculosis of the lungs.

The profound effects of phosphorus on the system make it a suitable remedy for deep-seated diseases, and its relation to tuberculosis (especially of lungs, larynx, or bone) is emphasized over and over again when the symptoms produced by drug and disease are compared. Early cases in adolescents most often present symptoms that suggest phosphorus. When tuberculosis is complicated by secondary organisms the characteristic signs become less common.

The type of fever that calls for phosphorus is one wherein there are frequent shiverings, followed by flushes of heat and free sweating. Hectic fever patients often suggest the use of it, and may benefit from it, but while it is often invaluable in combating the effects of long suppuration on nervous system, heart, or kidney, it does not seem to have much direct power over ordinary germs of suppuration. It is for this reason that if chronic tuberculosis or pneumococcal disease becomes secondarily infected, other drugs are needed to supplement the action of phosphorus, which is nevertheless effective against tubercle or pneumococcus alone.

Causticum and phosphorus are incompatible, and it does not follow or precede iodium well. These facts are important, for causticum and phosphorus

have many points of similarity in their pathogenesis, and a choice has sometimes to be made between them. It should be carefully made, for if the wrong one be given, the effect of the other subsequently is diminished or rendered null. Iodium is a most important remedy in tuberculosis of the lungs, so that again the choice between it and phosphorus should be made with considerable care. The reaction of patients to outside temperature are here a great help, for while phosphorus subjects are chilly, iodine patients love the open air and dislike warmth and hot rooms. Iodine candidates are also much less nervous and emotional, and hæmorrhages are not at all marked in the iodine pathogenesis.

PLATINUM.

THE METAL CALLED PLATINUM AND PLATINA.

Triturations of the Metal are used for the Lower potencies.

This remedy was introduced into practice by Hahnemann in his "Chronic Diseases," and remains almost exclusively in the hands of his followers. Since the introduction of colloidal metals in France, colloidal solutions of platinum have been prepared and used there, but no definite indications have been assigned to it, nor any special sphere of usefulness allotted to it. Professor Schulz has a little to say of it and some independent observations of the action of the chloride of platinum on the healthy. In five weeks each prover absorbed about two centigrammes of the drug in regular doses of a dilute solution. The nervous system was the principal seat of its action. Weariness and distaste for mental exertion and drowsiness were marked symptoms, with severe headaches, principally occipital. In the spine and

lumbar region pains developed and more definite neuralgias of the left arm and leg with paræsthesia and sense of muscular weakness. Abdominal pains were apparently referable to the colon: obstinate constipation and diarrhœa with tenesmus were both observed. In some provers a quick irregular pulse with pain in the cardiac region appeared. Sweating (often at night), especially of the hands and feet, was a common symptom: acne spots and boils appeared, and general skin irritation. The urine was increased in quantity, and passed more frequently.

Its provings and clinical experience based on them have led homœopathists to very definite conclusions with regard to this remedy, and its value is considerable when characteristic symptoms indicate it.

Several metals produce (and their use is prompted by) mental conditions: Gold and lead are suited to varieties of depression and melancholia, zinc and platinum are suggested by more unstable mental states, but whenever well marked, the mental symptoms rank high as indications for metallic remedies and platinum in particular is seldom successful unless the patient presents at least an approximation to its characteristic mental features. On the other hand, when these symptoms are present, great confidence can be placed in the remedy. The mental condition of platinum at first sight appears to be one of rather rapidly alternating extremes, hilarity and anger, wretchedness and excitement, following one another with little pause between. Such alternations remind the observer of *ignatia* and *crocus*, but closer inquiry will reveal an underlying characteristic which is almost distinctive for platinum, although a somewhat similar feature appears in the pathogenesis of *chamomilla*. This characteristic is arrogance, an overwhelming pride in self and a contempt for others. It is not always easy to detect, for the pride is often contemptuously silent, but care in observation will discover it. The combination of this arrogance with mental instability is highly significant. But there are other symptoms that form good additional indi-

cations. There may be present a desire to injure, even to kill, persons previously cared for. This may be an extreme development of the selfish arrogance but it is sometimes accompanied by the most intense suffering and attempt to conquer the impulse. Further, there is often a tendency for the mental symptoms to alternate with physical nerve symptoms. These are mainly subjective (*e.g.* pain) and referred to nerve trunks or to the spine or to the sexual organs. Dr. Nash has recorded an admirable case illustrating this point (Nash: "Leaders"). The point is that when the physical sensations are present, the mental condition approximates to the normal, and the mental symptoms appear when the pains or whatever are in abeyance. The pains appearing in the pathogenesis of platinum have the characteristic of coming on gradually and dying away gradually, exactly the opposite to the pains of belladonna, but similar characteristics are to be noted in the pathogenesis of stannum. Frequently there is numbness of the regions where the pain is felt, that is to say, the responses to tactile sensations are delayed or lessened. This symptom also appears under chamomilla, but there is usually much more active anger and bad temper when this latter drug is indicated: the patient needing platinum is seldom very angry, the feeling of superiority replacing wrath or conquering it. In spite, however, of this arrogance, fear is not at all an uncommon symptom in the platinum complex, fear of death (aconite), fear that something will happen, etc.: the fears become noticeable when the patient's mood becomes melancholy, and are less in evidence as the mood changes to a brighter tone.

Headaches are frequent in patients needing platinum (*cf.* Schulz's provings); they often seem to arise from emotional causes and especially from sexual excitement or at the catamenia. The region of the head pain is not characteristic, but an accompanying numbness of the scalp and the fact that the pain comes gradually and goes gradually would strongly indicate platinum. Similarly with pains elsewhere,

the gradual onset and departure of the pain and an accompanying numbness are general symptoms of great value as indications.

Together with these mental and nervous symptoms, those which are most characteristic of platinum are symptoms referred to and affecting the sexual organs. Indeed, it is highly probable that the effects of the drug on the sexual organs are largely responsible for the mental symptoms. The normal internal secretions of these glands play a very large part in determining the self-confidence, sense of personality and courage which are notably lacking for instance in the castrated. It is not difficult to imagine that a slight perversion of these secretions might carry self-confidence over into arrogance, or an alteration in the rhythm of secretion cause courage to alternate with fear. Be this as it may, symptoms in the sexual sphere are of great importance in leading to a choice of the drug. Females seem on the whole more susceptible than males, but it is a mistake to regard platinum as exclusively a remedy for women. Sexual hyper-sensitiveness is a marked symptom: not inflammation but erethism and hyperæsthesia. This is accompanied by increased sexual desire, and may lead to masturbation. Both for the condition that has led to it and for the nervous results of it platinum can be a sovereign remedy. Violent sexual desire, even nymphomania or satyriasis, can be controlled by platinum when other symptoms confirm the choice of the remedy. The hyper-sensitiveness may reach the point of pain and the external genitals be unable to bear the lightest touch. With this sexual erethism are associated pains in the ovarian region, especially the left (Schulz's provers confirmed this left-handedness of platinum symptoms), and uterine hæmorrhage. Increased flow at the catamenia of dark clotted blood. Platinum seems to predispose to hæmorrhage, generally venous and clotted. The period is too early, too profuse, but not usually prolonged. Between the periods leucorrhœa is common. Cramps and spasms, even hys-

terical convulsions, may occur in relation to sexual disturbances, and the mental state reacts on and is reacted on by the pelvic symptoms. Cramping, ineffective labour pains may find their remedy in platinum if the pregnant woman is otherwise of the platinum type.

Symptoms that suggest platinum are not infrequently found in pelvic cases of gross organic disease, *e.g.* prolapse, ovarian cyst, fibroma, etc. Each case must be judged on its merits with regard to surgical interference, use of pessaries, and so forth, and at any rate for cysts and large fibromas the practitioner will probably feel the need for surgery. But if the symptoms indicate platinum (or any drug) clearly, the use of the remedy will do much both before and after operation to relieve the patient, and should on no account be withheld, and if the gross change is recent and not giving rise to anxiety, the indicated remedy is quite capable, when skilfully handled, of clearing up conditions at first sight unpromising.

The bane of the art of medicine is the recourse to facile generalisations—to treat every case precisely on its own merits should be the physician's ideal.

Apart from the sexual organs, platinum has a considerable number of abdominal symptoms, more to be referred to the bowel than the stomach, and largely to the colon. Flatulence, colic and constipation are prominent: the abdomen is retracted, peristalsis spasmodic and ineffective. Indeed, the complex is so much like that of plumbum that platinum has been used as an antidote to lead colic. The stool, however, is more often clay-like and adherent, passed after much ineffectual straining: the plumbum stool, like that of opium, is more often like small black marbles. The alumina stool is more like that characteristic of platinum. Fasting generally aggravates conditions that call for platinum.

To sum up: when platinum is indicated, the symptom-complex will be mainly made up of abdominal (chiefly pelvic), mental and nervous symptoms, and indications referable to the sexual organs have

a special importance. It will often help neurasthenias and paresis and hysterical conditions, and its characteristic symptoms being largely of an "intimate" order, require much care and patience to elicit them.

PULSATILLA.

Tincture of the entire fresh plant of the Pasque flower, Pulsatilla Nigricans. This is allied to the Anemone Pulsatilla, but not identical with it. An American species has been partially proved, with results comparable to those of P. Nigricans, but preparations of the latter should be preferred.

Although all but unknown to modern medicine, outside homœopathy, pulsatilla had a considerable reputation in earlier times. Hahnemann found it in use for eye diseases, especially for ophthalmia, and for a variety of other disorders, and the provings soon showed that some at least of its empirical success could be attributed to homœopathy. Hahnemann appears to have had a large personal share in the provings of this drug, and it has always been a remedy valued by his followers. Clinical use has supplemented the tests of it on the healthy, and it can be prescribed with a good deal of confidence according to definite indications.

Pulsatilla causes well marked local symptoms, mainly on mucous and synovial membranes and very definitely on the generative organs of both sexes, but especially the female. Probably this action is responsible for its relation to a very definite type of character and temperament. Wherever this type comes under observation pulsatilla has claims to be considered for its treatment. The prevailing mood of these individuals is one of yielding, gentle melancholy, often showing peevishness but seldom temper: they are lachrymose and easily emotional, moved to tears by the mere thought of suffering, especially of

their own pains and sorrows ; sometimes they cannot relate their symptoms without weeping and self-pity, and lack of moral and physical "backbone" are characteristic. They like and seek sympathy, while at the same time they are shy and self-conscious, absorbed in their own affairs, yet anxious concerning the impression they make on others. They go easily from one mood to another ; while their prevailing atmosphere is one of melancholy, they can quite readily for a time be moved to laughter, often at trivial, childish things : they have seldom much intellectual power or interest, are unbalanced and hysterical. The anemone, the wind-flower, moves to every breath of air, and the pulsatilla subject is changeful, never the same for any long time, moving through grief to hilarious mirth and back to tears again, but never showing much anger or determination or obstinacy.

These persons lack energy, both mental and physical, and consequently tend to put on fat : they are soft, sedentary subjects, who can be roused to momentary interest and exertion, but speedily relapse to inertia and self-pity. Mrs. Gummidge is a good example of a pulsatilla patient in middle life, but the type can be found at any age. It must always be remembered, however, that the attempt to register typical characters in relation to drugs does not imply that only those who approximate closely thereto can be treated with the corresponding remedies. The descriptions are of those most likely to respond well to the particular drug action, and in so far as patients come nearer to the type, either by nature or as a result of disease, so the probability increases that the drug will be of value for them ; but in certain (probably temporary) emergencies the local need of a particular remedy might be considerable, even though the general temperamental characteristics were absent.

It is a great mistake to think of pulsatilla as exclusively a remedy for women and children. It is true, however, that the particular, gentle, yielding, emo-

tional temperament, changeable and weak, is very often found among women and children who have led a sheltered life. Those who have had to face realities of stress and difficulty generally harden and develop different characters or else go under. But however disconcerting it may be to masculine vanity, the characteristics that suggest pulsatilla are by no means exclusively feminine, and the remedy often is indicated and successful for men. It affects the generative organs of both sexes very markedly: the testicles are swollen and painful: and the prostatic gland secretes more freely. Emissions may be frequent and sexual desire is usually increased. Pulsatilla has a general influence on the tissues of veins, and is appropriate to conditions of venous hyperæmia and varicosis. Consequently it has a special relation to varicocele, and in early cases is of great benefit. In the female there is usually also increase of sexual desire. The menses are characteristically irregular, the interval being generally lengthened. The flow as a rule is scanty. Inframammary pain is often present as well as dysmenorrhœa of a more or less severe kind. Amenorrhœa at puberty, irregular, delayed and painful periods and a variety of nervous symptoms associated with them, respond well to this remedy, in many cases. Even for epileptic convulsions first appearing at puberty and associated with irregular menses, the drug can be hopefully prescribed, and minor troubles, headaches, neuralgias, etc., yield readily. Whenever, indeed, complaints are associated with scanty, painful, irregular periods, pulsatilla should be thought of and, if any of its general symptoms are present, prescribed: for its action on the generative organs is an essential feature of its pathogenesis and should be given full weight in determining its choice. Leucorrhœa, bland and non-irritating, frequently accompanies other pulsatilla symptoms, and the period of the puerperium may need it. In parotitis, the "metastasis" of the disease to the generative glands strongly suggests pulsatilla for this complaint.

Patients who benefit by pulsatilla are generally "chilly": the circulation is not active, and they dislike exercise, but their condition as a rule is one of low oxygenation. The venous system is congested and the oxygen content relatively low. Consequently there is a great longing for air: patients are better out of doors and worse in warm room, and from warmth in general, and this although they dislike cold weather and suffer much from such affections as chilblains. They prefer cold applications to relieve pain and headache, and cold food and drink in dyspepsia. Another noteworthy symptom is thirstlessness—even in fever, typical pulsatilla patients are not thirsty, and this feature will often determine the choice of the drug. It has been said that "the patient instinctively dreads increasing the body fluids because the vessels (venous) are already overfull": the phrase may be a convenient way of associating in the memory the thirstlessness with the venous congestion. The headaches of pulsatilla suggest congestion: they are dull and heavy, worse on stooping forward and relieved by tight bandaging. From several well-known passages of Shakespeare it may be concluded that a headache relieved by tight binding was a familiar type in his day. It is not so common in these times, and interesting speculations as to possible causes of the change in type might be made in regard to dietary and mode of life now and in the sixteenth century: but whenever a headache of this kind appears, pulsatilla is one of its possible remedies.

Another characteristic of pulsatilla is the great "changefulness" of its local symptoms. From day to day, characters of cough and expectoration or of joint pain or of stool will change as swiftly as do the mental features of the case, and this instability is always a strong indication for the drug.

Joints are notably influenced by pulsatilla to the extent of swelling and pain. The choice of it in acute and sub-acute synovitis is determined mainly by the general symptoms, but in a characteristic case

there would be a shifting of the trouble from joint to joint. Slow, gradual motion generally relieves and so do cold applications—both features opposed to the choice of bryonia. It has less value in chronic synovitis, though exacerbations of an old disease at the menses, if these were scanty and delayed, would suggest it.

The sweat may be profuse and perhaps sour and musty in odour. Skin eruptions are mainly of a character like the rash of measles: chilblains are common, and small pustules. For varicose ulcers or eruptions associated with varicose veins, the power of pulsatilla over the venous tissue may be used. Hamamelis and clematis compete with it here.

The other great seat of action of pulsatilla is the mucous membranes in general. Respiratory, alimentary, genito-urinary, all respond in the same way. From the mucous surface pours a copious, bland, creamy muco-pus, and the tissue is swollen and engorged. Ophthalmia of this character yields quickly and even corneal ulcers, while stytes are a marked indication: nasal and bronchial catarrhs also respond well. It should be noted that the lungs and larynx are not notably affected, and that with a typical bronchitis that calls for pulsatilla there will usually be great variations in the character of the cough in any subject. The copious expectoration will stop for a time and the cough become dry and fatiguing, or it will be dry at night and loose in the day or *vice versa*: or cough will be troublesome only by day and cease at night, which is unusual when coughs are frequent and obstinate.

The alimentary canal symptoms indicate a general catarrh. The tongue is white as if thickly (arg. nit. thinly) whitewashed, there is nausea and vomiting of mucus and a changeable diarrhoea, often with mucus in the stools. The drug is of no great value in deep inflammatory conditions of these regions, but is excellent for the catarrhs that follow indiscretions in diet, indulgence in rich food, in pork or pastry for instance: there is the characteristic thirstlessness to

look for and an absolute hatred of fat of any kind. Antimony is another most valuable remedy for such dyspepsias, but the mental characteristics when it is indicated are much more those of crossness and violent ill-temper than those of the tearful self-pity and longing for consolation of pulsatilla.

Pulsatilla affects the middle ear very markedly, and ordinary otitis media generally yields to it satisfactorily, whether or no suppuration has occurred. This is a last feature confirming others that give a leading place to pulsatilla in measles and sometimes in scarlet fever. Other less defined catarrhal affections and sequelæ (*e.g.*) to influenza may call for it. The inner ear is not so much in the sphere of action of pulsatilla except as far as its symptoms may be secondary to those of the middle ear.

The daily life rhythm is not characteristically influenced by pulsatilla. The changefulness of the drug shows in this respect : but there is very apt to be an aggravation of symptoms at twilight which should really be read as a mental symptom. The characteristic temperament of pulsatilla yields easily to the suggestion of melancholy, of the transitoriness of life, the incompleteness of human effort, that readily arise at the end of the daylight. Venus is the evening star, and pulsatilla patients are apt to pay homage to her in this and in other respects.

On the whole the remedy is most valuable for many acute and sub-acute catarrhal affections of mucous membranes and often for synovitis. In chronic cases there will generally be stress to be laid on symptoms connected with the generative organs, when pulsatilla is required. It may be that its constitutional effect will finally be attributable to some modification of the internal secretions of the generative glands. Its chronic counterpart is silica, and in spite of the fact that silica patients desire warmth as keenly as pulsatilla patients dislike it, any case that has benefited by pulsatilla is likely to improve more fundamentally on silica, and any chronic case that has responded to silica will generally find in

pulsatilla a remedy for incidental minor disorders like catarrhs and neuralgias.

Pulsatilla often helps anæmia—the characteristic state that calls for it is one of low blood pressure with diminished red cells and hæmoglobin, and if anything, excess of white cells. It is an antidote to iron and to quinine (as well as to many other drugs), and if anæmias have been dosed ineffectively with “tonics,” pulsatilla has a special value. Like nux vomica and sulphur, the drug may often have usefulness when beginning the treatment of an overdosed case. It acts on good indications promptly in all potencies. Spaced-out doses of the mother tincture often succeed admirably.

Pulsatilla is the antithesis of nux vomica in nearly every particular, and this is noticeable in its effect on sleep, for while the nux patient sleeps early and wakes early and cannot sleep again until it is time to get up, the pulsatilla patient is slow in sleeping, but once asleep continues late in slumber.

RHUS TOXICODENDRON.

Rhus Radicans is probably virtually identical with Rhus Tox. The tincture is made from the fresh leaves gathered just before flowering, at sunset.

The poison of this shrub is very virulent to those who handle it : actual contact seems necessary, even in susceptible subjects, in spite of some opinions to the contrary, but a very small amount (1-1000th milligramme) of the essential principle can produce symptoms. It is more active during the night and when damp conditions predominate : full sunlight weakens its action. An action so marked seems to indicate more than a power to irritate the skin by

local contact, and provings and clinical use endorse the claim that rhus can affect this tissue after internal absorption. The effects of poisoning may be summarized thus : Redness and swelling of affected part, with intolerable itching and burning : vertigo and weariness follow. Face and eyes become swollen and eyelids agglutinate : there is restlessness, pain, and fever. Vesicular dermatitis sets in with formation of bullæ and even appearances as of erysipelas : this may spread to mucous membranes. The mouth and throat swell, nausea and vomiting appear, and irritative cough. Pains develop about the joints, and great lumbar stiffness : arms and legs may become numb. The fever may be accompanied by delirium and mental confusion, and ends often with copious sweating. Urinary secretion is increased and diarrhœa is usual. Great general soreness and prostration are prominent symptoms.

This picture of poisoning will at once suggest uses of the drug for acute skin, joint and fascia affections, and it is noteworthy that before Hahnemann, Dufresnoy used it for skin eruptions and rheumatism. There is one outstanding symptom of the drug which Hahnemann noticed early, which remains so characteristic of it that its presence always suggests rhus, and in its absence the remedy is seldom indicated. This symptom is that the pains and sufferings caused (and curable) by rhus are at their worst when the limb or body is at rest, and are relatively relieved by movement. Frequently there is great pain on first attempting the movement of an affected joint or limb, but with continued movement the pain gets less and less till it almost disappears : then after a period of rest the same sequence of phenomena has to be repeated. Carrol Dunham makes the further point that the pain returns if movement is continued till fatigue comes on. This symptom is the precise opposite of the intense worsening of pain on even the slightest movement that characterizes *bryonia* and *colocynth* : it is more marked in the case of rhus than in that of any

other remedy, though it appears in the pathogenesis of rhododendron and other drugs. It suggests that the conditions that will be benefited by rhus are those of inflammation in the ligaments and fibrous tissues near but outside joints, or in fasciæ and muscle sheaths, rather than those that implicate the synovial membranes, while the sphere of action of bryonia is rather with the latter. But whatever the actual morbid anatomy, affections of joints, nerves, muscles, or fasciæ that present the characteristic of relief to pain from continued movement are likely to be relieved or cured by rhus. Following as a sequel to this leading symptom and correlated to it, is a second, namely, that the pains are apt to be worse by night than by day, the night being the time when the patient tries to rest, whereas in the day the inevitable more or less constant movement keeps the pains in the background. Pains are worse after rest as well as during rest, when rhus is required. Consequently, restlessness, a constant shifting of position to find ease, becomes characteristic.

Although rhus and bryonia differ thus diametrically in their characteristic reaction to movement of the pain which they cause, they are nevertheless often complementary remedies in the sense that a case often requires the one after the other, the characteristic symptom changing so as to give the indication for the change of remedy. In acute infections, too, they may run side by side. In the great typhus epidemic of 1813 Hahnemann found rhus and bryonia his main remedies, and the reaction of pain to movement was the chief distinguishing feature that guided his choice of one or of the other.

Another great general characteristic of rhus is the relation that the pains caused or cured by it have to damp. Aggravation or suffering from damp is a very marked symptom indeed. Even certain degrees of loss of power which have ensued on exposure of limbs to damp conditions (*e.g.* lying on damp ground) have been cured by rhus. It is likely that in these cases the fibrous sheaths of the nerves have

been involved, for the drug shows little influence on central or peripheral actual nerve structures. Cold winds are harmful to patients who call for rhus, though less markedly than damp. *Rhododendron* is a drug whose patients are very susceptible to cold wind.

The power of rhus over joints and fibrous tissues leads to its use in a variety of sub-acute and even chronic affections, but a reference back to the symptoms of poisoning by it will rightly suggest a value for it in acute febrile diseases. Always, however, this restlessness, following on the attempt to relieve pain by movement, should be present before rhus comes strongly to the physician's mind. It may occur in enteric, typhus, influenza, and other fevers. Other rhus indications are a stuporous state, with muttering delirium, a clouded intelligence when delirium subsides, and notably a dry tongue with a triangular red patch at the tip and the rest of it coated.

Rhus is particularly suitable to affections of joints, tendons, and fibrous tissues that are the result of over-strain (over-lifting, for instance), or over-exertion of a group of muscles. Also, not only the strains of prolonged exertion, but sudden sprains of a joint will respond well to it as a rule.

Apart from its relation to fibrous tissues, rhus affects the skin very acutely, and is one of the great remedies for recent and severe skin diseases. Its power is less marked in proportion as the disorder becomes chronic, but recent and acute eczema, for instance, is well met by its prescription in many cases. The skin diseases that call for it are vesicular or pustular, even erysipelatous. Shingles is often helped by it. Itching and pain and free discharge are usual symptoms. Œdema is less than when apis is called for. The mucous membrane of the eyes is much influenced by rhus. It meets particularly an acute conjunctivitis with profuse lachrymation and pain. The deeper structures are less affected.

The respiratory mucous membranes are irritated

rather than inflamed. There is a dry teasing cough with tickling in the larynx which rhus can relieve, and particularly if cough and the hoarseness that generally goes with it are at their worst on beginning to speak and relieved by further use of the vocal cords. This symptom is another illustration of the general symptom of relief from movement.

The genito-urinary system is not affected to any marked extent, although the secretion of urine seems to be stimulated by the drug.

In the alimentary canal, the mouth is dry and may be inflamed and ulcerated. Saliva is viscid and may be copious. The tongue is dry, red or brownish, but characteristically (as already noted) presents a triangular red tip: it is often cracked, inflamed, even ulcerated. Nausea and vomiting, with loss of appetite are common, but gastric pain is not considerable. The intestine shows more definite signs of involvement, with colicky pains and loose, bloody frothy stools, often containing mucus and shreds; more rarely constipation alternates with diarrhœa, and there is a chronic painless morning diarrhœa that finds its remedy in rhus tox.

The effects on joints, nerve sheaths, and muscles have been sufficiently indicated. Whenever these structures present pains that are relieved by continued movement rhus comes to be considered: if there is aggravation from damp to note or history of special strain, the choice becomes the more suitable.

Patients who require rhus generally sleep badly, but the sleeplessness is due to increase of pain as a rule, and rhus removes the symptom by relieving the suffering.

Radium shows a parallel to many of the symptoms of rhus, especially those affecting skin and joints and fasciæ. Its action is more profound. Rhus will antidote some of the effects of radium, but in spite of this, if a case has responded a little to rhus and yet remains uncured, radium will often complete the recovery.

SEPIA.

Sepia Officinalis. Trituration of the (dried) substance from the ink-bag of the cuttle-fish.

This remedy is unknown outside homœopathic ranks, and owes its presence in the *Materia Medica* to Hahnemann. It is said that some preparation of the cuttle-fish was used by ancient physicians, and (interestingly enough, in the light of the provings) it is also said that it was held valuable for genito-urinary catarrhs and for baldness and freckles ; but to-day only homœopathists employ sepia, although for them it is among the most important of remedies.

Like *pulsatilla*, which, however, it does not closely resemble, it is apt to be considered as almost exclusively a remedy for the female sex ; but in each case this view is mistaken. *Sepia* will be indicated, it is true, four or five times as often for women as for men, but its effect on the male sex when rightly prescribed is marked and satisfactory. In both sexes the starting point of its action is the generative gland system, and it is the predominance of diseases of these organs among women that make them need *sepia* more often than men. It affects the body so profoundly that it is difficult to resist the thought that, besides its marked relation to the tissues of the genital organs, it modifies in some way the internal secretions of the main sexual glands, and probably others (*e.g.* adrenal). But it must remain at present doubtful if its effects are to be attributed mainly to alteration of quality or quantity in this respect. Very possibly the latter, since interferences with the general balance of internal secretions can be pleaded as causes of some characteristic symptoms. Adrenal secretion, for instance, seems often diminished, and thyroid actually or relatively increased. *Sepia* will now and then affect thyroid enlargements favourably in a remarkable way (the general symptoms being present). *Natrum muriaticum*, which has points of comparison with *sepia*, is perhaps more often called

for in chronic disease of this gland. Among the mineral constituents of sepia, magnesium comes prominently forward, and this fact has no doubt a bearing on some symptoms of the drug.

Patients who suggest sepia are nervously hypersensitive, and they react violently to sense impressions: thus the sense of smell is acute, and odours, even pleasant ones, are not liked. There is often a complaint of consciousness of foul odour persistently, which (seeing that sepia is responsible for considerable nasal catarrh) is probably due to the increased sensitiveness, making the patient aware of a secretion which ordinarily would not rouse a conscious reaction. Sepia subjects are sensitive to light, especially to artificial light: marked photophobia is a strong characteristic of phosphorus which compares closely in many respects with sepia. Particularly when sepia is indicated is there intolerance of noise, sudden noises are unbearable, and even slight sounds become the sources of irritation. There is great sensitiveness to music: even those who normally love it find it more of an irritation than a solace, becoming very acutely conscious of even the smallest lapses from perfect renderings, while the sounds that too commonly pass for music drive these sufferers to the verge of distraction. All this hyper-sensitiveness leads on to a general mood of irritability which, on the least excuse or on none, breaks into fits of anger and rage comparable to those characteristic of *nux vomica*, a drug which often stands in a close relation to sepia. The irritability is absolutely intolerant of any attempt at sympathy, the depression and melancholy that go with it (for it is a melancholy irritability) resents the least expression of sympathy, so much so that the sufferer shuns company and seeks solitude, and is often (very characteristically) filled with dislike of those who normally are the most loved: at the best the candidate for sepia will show indifference to friends; at the worst, positive dislike of them. With this prevailing mood, however, there may be intense sadness, even to weeping, but the

self-pity that inspires it is proud and solitary, poles asunder from the easy, soft, yielding tearfulness that suggests *pulsatilla*. Among other drugs that have melancholy and weeping prominent in their pathogenesis, *nat. mur.* resembles *sepia* in the quality of this symptom.

Irritability, then, and melancholy with apathy and indifference to friends, and fits of temper breaking out on inadequate grounds, these are the prominent features of the temperamental condition which suggest *sepia*. There is also a considerable element of fear in the mental-complex that suggests this drug—[•]anxiety and fear about real or imaginary evils, so that, even as with *pulsatilla*, the patient may be moved to tears in relating her (or his) symptoms. The fear may even lead to a dread of being alone, which does not contradict the aversion from society described above, since it is not due to a desire for company for the sake of its amenities, but to a purely selfish wish to be relieved of a personal anxiety. A certain greediness and indolence also appear in the selfishness that is characteristic of *sepia*. This mental condition is frequently met with at the two extremes of sexual life. Thus, from puberty to about the age of twenty-five, the period when the effects of the sexual glands become established and the first sex experiences have to be undergone, is a time when *sepia* is often required. It is here particularly likely to be indicated in the ardent and physically passionate, whose desires may lead them to excess (cf. again *nux vomica*): the effects of excesses are apt to present a symptom-complex resembling that of *sepia*. The drug is particularly to be thought of when the lowered state of health consequent apparently on sexual over-indulgence proves the starting point of such a disease as tuberculosis (see below). When gonorrhœa has passed the acute stage and its chronic sequelæ are threatening, *sepia* competes with *thuja* in value.

At the end of sexual life, again, at the climacteric, *sepia* is often needed, and the characteristic tempera-

ment shows itself. Vaso-motor instability is a marked symptom of the drug, and flushes of heat (and also sudden sensations of cold) readily appear. Most characteristically, with sepia they travel from below upwards and end in sweating. The hands may be hot and the feet cold, or *vice versa*. In general, patients who need sepia are chilly and feel the cold; their circulations are poor, so that extremities become blue and chilblains readily appear; the arterial tension is low and venous congestion easy. But, even as with *pulsatilla* and *carbo vegetabilis*, this "venous" chilliness shows great desire for oxygen, and the sepia subject demands air and resents stuffy rooms, so that even in winter windows may have to be widely open.

The characteristic mental type often accompanies a definite physical appearance. The whole organism is slack in fibre and relaxed, and the lines of the face are not firm; the body droops, the tissues are lax, the patient is nearly always tired and weary, and the physical joy of life is unknown. Similarly, unhealthy fat may have replaced muscle to some extent, the face looks flabby and puffy. The skin appearances are often (not always) characteristic: freckles and excess of pigment are common on a sallow complexion, and there is a yellowish streak across the nose spreading on to the cheeks (in the region characteristic for *lupus erythematosus*), which, as the "sepia saddle," has become a classical symptom. It is quite often seen in patients who indicate sepia otherwise, but of course it is neither invariably present nor, when present, an infallible indication: it is but one symptom, though a characteristic one. The skin sweats easily, particularly in the axillæ and about the genitals and the back, and the sweat has often an unpleasant smell, of which the patient is very conscious. The sweats may be drenching night sweats. Further, those who require sepia are very subject to invasions of the fungoid parasites, that manifest such diseases as pityriasis versicolor and ringworm. There is no doubt that

resistance to these invaders varies very much in different cases: sepia patients have a resistance notably low to them. Now it was long ago observed by Burnett that pulmonary tuberculosis or tendency thereto was often accompanied by just such a lowered resistance, and this sepia symptom points to a real value that the drug has especially in early or threatening phthisis. Acute pulmonary symptoms need as a rule other remedies, but in the very early stages, or in chronic intervals, sepia has a definite place, and should be thought of whenever the general temperament suggests it, and especially if there are any noteworthy pelvic symptoms.

With the sallow freckled complexion and slack body goes a general air of intense weariness. Backache is almost a permanent condition and standing is an affliction to the patient. Hard pressure relieves the backache for a time. The circulatory deficiencies cause congestion of internal organs, so that there is a constant sense of dragging and bearing down. On pelvic examination, these symptoms in women will be at least partly explained by a general slackness of the pelvic structures and some greater or less degree of prolapse. Sepia has been called "the washer-woman's remedy," and indeed women who have to stand long hours at the wash-tub in a hot, steamy atmosphere, with intervals of hanging out clothes, in weather possibly cold and wet, are very likely to develop physical conditions which result in a symptom-complex suggesting sepia, and if to their work is added over-much child-bearing and any degree of stimulant taking, the likelihood of the development of such disorders is increased. But whatever the cause, pelvic congestion and prolapse, with backache and bearing-down sensations, inevitably suggest sepia, and when the other symptoms correspond it can be given with considerable confidence. This is not to be taken to imply that there is any magic in the drug that will cure the condition while the causes that produced it still obtain, but if they can be modified, sepia will have great effect in removing their

consequences, the drug acting (as drugs all but invariably act) by encouraging the natural tendency to recovery. Also, if the conditions cannot be modified, it is not beyond the power of the remedy to enable a better bodily resistance to be maintained to them so that relief can be secured, if not complete cure. Thus the physical condition of prolapse will very likely demand artificial support for the patient's relief, but if treatment is persisted in, there is ample evidence that the pelvic slackness that originally helped to indicate sepia can be largely repaired, and that every now and then recovery is complete enough to enable the use of pessaries to be discontinued, and short of this success the ability of the drug to aid mechanical or operative measures is indubitable.

Besides the chronic backache and sense of weariness, sepia shows marked symptoms of pain in its pathogenesis affecting chiefly the pelvic region (rectum, vagina, urethra, etc.) and the head. The headaches are severe, hemicrania is common (with ocular symptoms, flashes of light, and disturbed vision); the pains are violent, and often throbbing resembling in many respects those caused by *natrum mur.* Thundery weather makes the headache worse and is disturbing to the sepia patient in most ways. Vertigo may be accompanied by the sensation as of something "rolling round" in the head, and this curious sensation may be linked in memory to one characteristic of pains in rectum and vagina, where, besides stitches and shootings of pain, there is a feeling as of a hard round substance in the passage. It is undoubtedly a spasm of involuntary muscle, for sepia acts markedly on sphincters, causing both spasm of them and paresis, or even paralysis. The symptom in the rectum may accompany both diarrhoea and constipation (the latter more often), and is not relieved by stool. Apart from head and pelvis, the pains caused by sepia are not noteworthy. On motor nerves it acts in the direction of spasm, and later, paresis, mainly of involuntary muscles, though occasionally deep-seated spinal diseases (e.g. dis-

seminated sclerosis) will show (generally in women) a sepia symptom-picture, and benefit markedly by its administration. Knowledge is still far from complete of the deepest actions of many remedies, and any chronic illness whose complex of features suggests any drug clearly should be treated with it, whether or no the limited knowledge of its ultimate morbid anatomy confirms the choice. It is always to be remembered that similar gross morbid anatomy in two or more cases may arise from causes by no means identical ; thus, more than one germ can cause pneumonia. But if the actual or impending tissue change is due in two cases to two different causes, the symptom-complexes will probably differ and demand diverse remedies. Further, a deep-acting drug whose power possibly is exerted on a fundamental mechanism such as the balance of internal secretions might well be indicated by symptoms arising from a disturbance of this mechanism, and, being administered, correct it with benefit to tissue symptoms depending upon it, even though the drug had in itself little or no special relation to these tissues affected. Sir John Moore in 1809 relieved the pressure of Napoleon on the Spaniards for a time by striking, not directly at the French, but at their line of communications. Similarly, a patient with a chronic disease may well require not a tissue remedy, but a corrective to the disturbance which is affecting the tissues.

However, the mere local action of sepia upon various regions of the body is pronounced. Probably the sites of its most important action are the genito-urinary tract, the alimentary tract and the skin, although it has a value also in certain respiratory diseases.

On the genito-urinary tract, the objective symptoms in the male are those of chronic catarrhs, principally of the urethra, with congestion of the prostate and of the bladder to some extent. Warts may appear at the urethral orifice—and ulcers. The external genitals sweat freely and the secretion is apt

to be foul smelling. There is increased sexual desire, but sexual intercourse is followed by great lassitude and fatigue. (This is also characteristic of salts of potassium.) The characteristic prostration, weariness and slackness of sepia are prominent in relation to the disorders of the sexual organs. The use of the drug is hereby indicated for gonorrhœa after the acute stage and chronic affections of the lower genito-urinary tract. The descriptions of the urine in the older provings strongly suggest bacilluria, and from clinical experience it is highly probable that large doses of sepia lower and medicinal doses raise the system resistance to infections of the coli type in the urinary tract. High-coloured, offensive urine, with heavy deposits of urates and frequent micturition (pyknuria) are characteristic. Sepia tends to produce both spasm and paresis (especially the latter) of sphincters, and thus comes to be a remedy for enuresis, especially if the urine is irritating in quality as well as the muscle of the sphincter weak. It is characteristic that the involuntary passage should occur in the first sleep.

Upon the female organs the effects of sepia are even more marked. The periods are usually scanty (murex, in many respects an analogue of sepia, produces the opposite effect in this regard), in spite of the fact that with sepia the uterus is congested; but the congestion is of a chronic type and leads rather to degeneration of function: sterility is a frequent accompaniment of the conditions that call for the drug, and also a tendency to abortion may be cured by it. There is a general slackness of the pelvic floor, so that uterine displacements are almost inevitable. Backache (in sacrum chiefly), with severe bearing-down pains extending into the thighs, are prominent, and the whole pelvic condition is apt to be associated with sensations of sinking and emptiness, which are referred to the upper abdomen, but seem to be reflex symptoms from the pelvis. Leucorrhœa is a common symptom, generally containing pus, and the external genitals are apt to be irritated

and inflamed. They also sweat readily after labour when it has been exhausting, either through prolongation of it or through previous poor health of the patient. Sepia symptoms are frequently prominent and relieved by the drug during pregnancy.

The alimentary canal is considerably influenced. The sallowness of the complexion indicates dyspepsia and portal congestion. There is often a yellowish tinge to the conjunctivæ and anæmia in some degree is common. There is a special loathing of fat food like that found under *pulsatilla*. On the whole, appetite is apt to be increased and may be excessive : the tongue is generally coated and is often specially sore at the tip. After food there are sour, burning risings in the throat, hiccough, sweating, flatulence. The patient complains much of "acidity," and the dyspepsia is of the type that accompanies the sensation of excess of acid, though it is uncertain whether the drug can actually cause an increase in the total stomach acidity. Waterbrash and nausea and vomiting may occur. The vomiting of pregnancy finds a remedy in sepia occasionally when the general symptoms also agree. Particularly prominent is the gnawing, empty feeling, even soon after a meal, which patients call "sinking." Food relieves it (and sometimes other sepia symptoms) for a time, but it soon recurs. On the whole, eating generally aggravates the condition. Abdominal pain with flatulence is common, and discomfort generally. The character of the symptoms as a whole suggest a (not very severe) catarrh of the mucous membrane, and a more significant interference with the quality and quantity of digestive secretions. Constipation is the rule, with scanty evacuations and much straining : the rectum may become prolapsed and the portal congestion shows in protruding and bleeding hæmorrhoids. The tenesmus giving rise to the sensation of a "ball" in the passage has been already noted : it makes the patient feel even after a motion as if the rectum were not emptied. Excoriations and warts and condylomata are common in the anal region.

The flushes of heat and chills of cold which testify to the vaso-motor instability of the drug cause a good deal of intermittent palpitation, which is likely to accompany pelvic and abdominal troubles, but there is no evidence that sepia affects the heart directly.

Besides the pains in the back, joint and muscle pains, with stiffness and tension and neuralgic pains, affect the whole locomotor system. Whenever chronic arthritis is associated with chronic pelvic disease, or seems to have arisen in connection with a former leucorrhœa, sepia is worth remembering, and its constitutional symptoms should be looked for. Spasms, restlessness, and lack of energy are frequent. There is relief from external heat and aggravation from cold, and the sulphur symptom of dislike of bathing appears also under sepia. The legs and feet are specially apt to be cold, while the upper parts may be hot: these weary achings are worse in the early morning, and from almost any external calls on the patient, physical or mental exertion. Quite frequently, however, after violent exercise there is a real amelioration, as though for a time the general systemic circulation was improved. Rest and repose, at any rate, seldom bring any relief, and after sleep there will be no cessation of the patient's complaints, but often the reverse.

There is very often considerable drowsiness during the day and broken sleep at night. The early morning is a bad time for patients who need sepia, and they prefer to lie late in bed if possible, not because they are free from pain there, but because their very weariness suggests that any exertion will be intolerable.

In the respiratory sphere, sepia causes a nasal coryza (generally one side at a time) with dryness of the throat and hoarseness. The cough is usually accompanied by considerable expectoration in the morning, which may be of mucus or of muco-pus. The cough is often spasmodic and accompanied by pains in the chest. The early stages of tubercle, when this disease comes on in middle or later life, are very apt

to suggest sepia, and the drug is of real value when the symptom-pictures of remedy and patient agree at all closely.

The skin symptoms of sepia are of great interest. The yellowish tinge and tendency to deposit pigment in small patches occur not only over the skin of the face, but all over the body. The skin is unhealthy, in that it cracks readily and small injuries fester. Papillomata readily appear, and thickenings and indurations. There is much itching and tendency to sweat. The eruptions are usually of small vesicles or papules. The hair follicles are notably affected. It is doubtful if any drug controls the falling out of hair better than sepia. It may be used for this both locally and internally, and seems to have a real power to encourage new growth over thin or bald patches.

It has already been noted that under the influence of the drug also the general resistance is lowered to parasites of the type of pityriasis versicolor and ringworm. The local treatment of these infections is all-important, but the constitutional value of sepia should not be overlooked here as well. The observations of Burnett on the relation of this phenomenon to pulmonary tuberculosis have been quoted above.

Sepia and lachesis are generally incompatible. This is important, as both come much to be considered at the climacteric. But their general symptoms are different enough to make the choice generally easy between them. It often takes up and completes the action of *nux vomica* well and follows salts of sodium well. Nitric acid often proves the complement to sepia. When sepia is being given in high potency and in infrequent doses (and this is the best use of it), acute intercurrent pelvic symptoms, if so prominent that a remedy seems desirable, will often find that remedy in *murex*. On the whole, sepia is a drug for chronic diseases, and the lower potencies are not very much employed. But in some fairly recent gastric complaints, and in some coryzas, they have a value.

SILICA.

Silica Dioxide—Flint. Prepared by trituration from pure Precipitated Silica.

This remedy is virtually unknown to physicians who have not studied homœopathy, although Paracelsus and Glauber used it, but like other minerals ordinarily considered inert it passes under trituration into a colloidal state and displays marked powers of affecting the human body.

The mineral is widely distributed over the earth and is an element in the supporting structure of many plants. In the normal body-tissues only small traces are found, but it is a constant component of the dental enamel and of connective tissue.

One very interesting observation with regard to it has been made by German observers, notably Schwarz, who, experimenting with the Glashäger Spring water, which contains one part in 25,000 of silica, was able to show in twenty out of twenty-three experimenters a marked leucocytosis ranging from 40 per cent. to 216 per cent. This observation is of great importance, as will be readily admitted when the uses of the drug have been further discussed.

Professor Schulz, of Greifswald, has made provings of silica which agree generally with those of homœopathic text books. Among other observations, he confirms obstinate constipation as a symptom which the drug can produce. Having observed that such constipation is very common among infants fed on sterilised milk, he was led to test samples of this food, and found that the silica content of it, though of course very small, was high compared to that of unsterilised milk, and derived no doubt from the glass sterilising vessels, since modern chemistry has shown that insolubility is only a relative term. Dr. Schulz suggests that this silica may account for the frequent presence of constipation in infants artificially fed and even perhaps for graver symptoms.

Professor Schulz points out that certain mineral waters recommended for chronic urinary diseases possess a relatively high silica content. Thus Vichy water contains eight centigrammes to the litre, and the Wernarz Spring at Brückenau fifty centigrammes to the litre. Careful examinations by Schulz revealed the presence of silica in all connective tissue, and demonstrated also that the silica content varies inversely with age. He has also found it in pus and in the contents of ovarian cysts. Schulz conducted a series of provings of silica in the Hahnemannian way. The symptoms which his provers developed were those of increased nervous sensibility with great muscular weariness and sense of fatigue. The hands developed tremor, the knees gave out on exertion. Then developed pains in the limbs following the main nerve trunks—bone pains and marked pains in joints worse in rest and relieved by gradual movements. Headache was constant and severe; attacks of giddiness common; sleep much disturbed by dreams. The hearing was definitely impaired in more than one prover.

Meteorism and obstinate constipation, alternating with attacks of diarrhoea, were symptoms of all the provers.

The urine was either increased or diminished, and Schulz quotes Breitenstein in this connection, who found in one case that the quantity of urine increased 37 per cent. under the administration of equisetum, which contains a large quantity of silica.

Acne eruptions and furunculosis occurred in the provers. Dandruff was marked with falling of the hair. Itching of the skin became troublesome and the nails grew malformed and tended to split.

The sexual organs in both sexes appeared to be stimulated.

The lymph glands swelled, a symptom to be noted in view of the power of silica to cause leucocytosis.

Sour foot-sweat with soreness and tendency to inflammations of the skin of the feet was a symptom definitely produced.

Schulz uses the drug chiefly for furunculosis and enlarged lymphatic glands, but he deduces from the increased silica content of the connective tissues of the young that the mineral may have a definite bearing upon normal growth and development, and is inclined to use it for chronic maladies of childhood and infancy.

The provings of Professor Schulz here, as always, confirm those of homœopathists, but lack the precision and extent of the latter. They are most valuable confirmations of homœopathic beliefs, but a century of clinical use since Hahnemann proved and introduced this remedy enables his followers to be more confident in their recommendations of it than the distinguished Professor of Greifswald.

Silica is principally a remedy for chronic diseases ; its action is persistent, and when well indicated and given in high potency it needs but infrequent repetition. A convenient mnemonic for the type of patient likely to be benefited by it is "want of grit, moral and physical," flint (silica) being "grit" *par excellence*. It is in this the chronic counterpart of pulsatilla, and many important symptoms of the two drugs are identical. For instance, under silica is found lachrymation, loss of taste, great aversion from fat, tendency to purulent secretions (especially however, with silica to the thin, scanty pus, generally due to streptococcal infection, while the pulsatilla secretions are freer, of a bland muco-pus, and often associated with staphylococcal invasions) : relief of joint pains from gradual motion (cf. Schulz) : photophobia. Generally speaking, when a patient has derived temporary benefit from pulsatilla, silica is likely to produce more lasting effects. It is interesting to note, however, that the reaction to temperature characteristic of silica differs from that of pulsatilla, since silica patients are very chilly and find relief from warmth (especially from wrapping up, e.g. wrapping up the head for headache), while pulsatilla patients prefer generally cool air and are averse from heat. Dr. Kent teaches that silica does

nor follow pulsatilla well when chilliness is a marked symptom of the case, and that in such an emergency kali sulph. is preferable ; but when pulsatilla has done good I have seldom found the use of silica disappointing. Apart from its relation to pulsatilla, silica is indicated more for the patients whose troubles are brought on or aggravated by cold than for the warmer blooded : worse in cold weather, worse from uncovering, worse from approach of winter, worse before and during storm, and relieved in summer, relieved by wrapping up warmly, are all conditions characteristic of silica.

The relation to connective tissue noted by Schulz is endorsed and extended by homœopathists, and equally by Schüssler and his school. It has power over suppurative processes, chronic suppurative skin diseases, acne, and old furunculosis, and also in helping suppurations and sinuses and fistulæ to heal (cf. fluoric acid) ; it also influences scars and the development of keloid and neuralgic pains in scars. It is reasonable to associate its power to cause leucocytosis, with its influence on inflammatory processes. Occasionally (*e.g.* in chronic pulmonary tuberculosis) its use may have danger from its liability to rouse a chronic dormant inflammation to activity and free suppuration : in this respect its action is sometimes analogous to that of an overdose of a specific vaccine. Its power seems more marked over streptococcal than over staphylococcal infections, but generally speaking, when there is chronic suppuration in almost any part of the body silica will probably have a value if the general symptoms of the patient correspond to the provings. Particularly should it be remembered for inflammations affecting the neighbourhood of the nails, crippling and deforming them.

Silica is valuable to check excessive sweating, especially of the feet and hands and head. The sweat which indicates it is often sour and offensive. It is often successful in rickets ; and the characteristic symptoms of that disease can be paralleled in the pathogenesis or confirmed as indications by clinical

experience. If lymph glands swell, become inflamed, and indurated and suppurate, silica is to be carefully considered. It is well suited to nervous, irritable patients, to weakly persons with lax muscles, to sickly children who do not thrive and are over-sensitive. The excessive foot-sweat is a noteworthy symptom. When it is present, patients often adopt violent measures to check it, and, as no doubt it is an excretory effort on the part of the body, grave general symptoms are often found to follow its forcible suppression by strong local applications. Whenever there is a history of foot-sweat thus checked, silica should be thought of. It will often temporarily restore the secretion, with relief to the general conditions, and then finally cure both the sweat and the disease of which it was a symptom.

Over-susceptibility to nerve stimuli should be noted as one indication for silica, together with a state of melancholy, with easy weeping and desire for consolation, which (rightly) recall the symptoms of *pulsatilla*. When there is nervous fatigue and neurasthenia, these symptoms often appear. A characteristic indication for silica is a severe chronic headache beginning at the nape of the neck, coming over the vertex and settling behind one or the other eye (more usually the right). The headache is worse from cold air, relieved by wrapping up warmly, and relieved by profuse urination—an indication of its toxic origin. Vertigo is often associated with it. With the melancholy there is often obstinacy, especially in children: this may degenerate into a "fixed idea."

In the digestive sphere, the symptoms are more intestinal than gastric. Distension of the abdomen is a common symptom, and the patient who needs silica is nearly always constipated. There is inertia of the rectum, the stool being passed with great difficulty, receding when partly expelled. Silica marina (sea sand) has sometimes proved very valuable in chronic constipation, and constipation of infants will often yield to silica or alumina or lycopodium

(which, it is interesting to note, contains both silica and alumina), but Schulz's suggestion as to sterilised milk (see above) must be remembered.

The drug will be useful in almost any chronic condition when the general symptoms correspond, and comes to be considered often in chronic inflammatory diseases of the chest, of the joints, of the kidneys, of the nervous system. Indurations and scars and thickenings should always bring it to the mind of the physician ; it may be useful in cataract, and has a place in the palliation of recurrent cancer, especially scirrhus. Its tissue relation to connective tissue should be constantly remembered, and its great value for the malnutritions of the young and growing. Like its counterpart, pulsatilla, it has a special relation to the external and middle ear.

Equisetum contains as much as 16 per cent. of silica. It is chiefly valuable in the more superficial urinary and bladder diseases, and, bearing in mind Schulz's experience, its effects may be largely attributed to its silica.

Mercury is quite incompatible with silica, and they must never be given near one another in point of time. Hepar sulph. and fluoric acid follow it well, as do also lycopod. and sepia. In rickets silica is often useful after calcarea, and it follows graphites and phosphorus well. Its relation to pulsatilla has been already discussed. The characteristic headache and wrapping up is found also under mag. mur., which also has somewhat similar constipation symptoms to those of silica and foot-sweat. Unhealthy skin, where every little injury suppurates (*i.e.* lowered resistance to ordinary germs of suppuration), is found also in the pathogenesis of hepar, graphites, petroleum and mercury, and ant. crud. markedly affects nails. Fluoric acid has great power over sinuses and fistulæ.

SULPHUR.

Trituration of Flowers of Sulphur. A saturated solution in absolute alcohol is also taken as the mother tincture and potencies made from this. The quantity of Sulphur dissolved is .035 gram. Sulphur to every 100 grams of tincture.

Sulphur is one of the oldest remedies in medicine, but of late years, except for homœopathists, who rank it among the chief of potent drugs, it is little used except as an external application and as a purgative.

A large dose of sulphur readily causes a laxative action, with a certain slight catarrh of the bowel, and with the purgation thus achieved the whole mass administered generally passes away with little or no absorption. A local effect is obtained but not a general one. But if the drug is taken in small repeated doses, insufficient to produce at once active purging, then it is readily absorbed, and profound effects produced, especially in chronic diseases. This is tacitly admitted by any physicians who make use of sulphur springs for chronic joint cases, for chronic syphilis, or for lead or other metallic poisonings, because the amount of sulphur in most sulphur springs is not large. In the famous springs at Aix-la-Chapelle, for instance, there is only one gram of sulphur to 250 litres, yet the virtues of treatment with it are renowned and the power of small quantities is surely thereby confessed. Homœopathists, however, are almost the only physicians deliberately to aim at the profound effects of the drug by administering minute doses of it. It has to be remembered that a small but essential quantity of sulphur is contained in the albumen molecule, so that it is not to be wondered at that quite a small disturbance of sulphur equilibrium in metabolism should have a marked effect. It should be added that the virtue of the sulphur in sulphur springs in producing im-

provement has been denied, and the value of the treatment attributed to the general hygienic measures of hydrotherapy, the heat of the bath, etc. But it is nevertheless true that physicians in general continue to choose sulphur waters for certain complaints, and not other waters, although if the sulphur is inert other waters should do as well. So that the verdict of general experience would seem to be that the sulphur *has* a value, and it is at least interesting that the verdict of general empirical experience so often confirms the uses to which the homœopathist is led by his provings.

Certain experiments show a considerable increase in the urea excreted under the influence of sulphur. This suggests a heightening of general metabolism, a "speeding-up" of body machinery, and might account for some of the value of the drug in hastening elimination of metallic poisons or even toxins. Clinical homœopathic experience would certainly encourage a belief in this power.

Professor Hugo Schulz, of Greifswald, almost alone among non-homœopathic physicians, has a clear conception of the powers of sulphur. In this as in other matters his researches have led him to conclusions largely accordant with those of homœopathy, as he freely acknowledges, but the independence of his investigations adds great value to his confirmations of homœopathic experience. He has had sulphur "proved" under his own direction, and bases his clinical uses of it upon these findings. He emphasises the great difference in the value attached to the drug by the two schools, and is not unfairly critical of the somewhat complacent lack of experimental curiosity on the part of physicians, who, with the experience of the sulphur springs to give them suggestions, yet make so little use of the remedy, and decry, without any personal investigation, the conclusions of those (like himself and the homœopathists) who have at least grounds of experiment for their convictions.

He quotes effectively the well-known lines from

“Faust,” addressed to the old and prejudiced imperial counsellors, which may be paraphrased thus :

“All you can’t grasp is wholly lost on you,
All you can’t reckon is, you deem, untrue,
All you can’t weigh for you no weight can hold,
All you can’t coin, can’t pass, you think, for gold.”

Wherever the truth lies in the homœopathic controversy, these lines are a fair criticism on the attitude (so terribly common) of the expert in the old to the experimenter in the new, as not only Hahnemann, but Harvey, Semmelweiss, and a hundred others could testify.

Schulz points out first that sulphur is an invariable constituent of albumen, and second that the sulphur content varies with different tissues. Particularly are epithelial tissues relatively rich in it, and the relation of sulphur to the skin is a close one.

As a result of his “provings,” Schulz states that one of the early effects of taking small repeated doses of sulphur is upon the higher nerve centres. The first sign is a sense of discomfort, combined with increased sensitiveness and “nervousness” ; inability to concentrate and to pursue mental work follow, with ready fatigue after relatively slight exertion. Lack of interest in life deepens into apathy, almost into melancholia. Drowsiness often increases : the sleep at night becomes heavy but unrestful, and presently the patient begins to drop off to sleep at any time in the day, but occasionally the reverse phenomenon is seen, and sleeplessness or light sleep broken by terrifying dreams appears. Both these opposed effects can be seen as a consequence of sulphur poisoning, and sometimes even the one state will pass over into the other. This is an instance of a phenomenon which is found with great frequency in homœopathic provings, the phenomenon of the appearance of so-called primary and secondary symptoms. Thus a primary diarrhœa appearing under the influence of a drug will be replaced by constipation, a primary spasm by a secondary paresis, a primary neuralgia by numbness. Both effects are drug effects, and therefore on the strength of the

homœopathic generalisation, either should be an indication for the use of the drug if it appears in disease with similar characteristic qualifications. Clinically an attempt has sometimes been made to use either symptom-group as an indication, but to modify the potency of the drug according as the indication followed is primary or secondary. But the attempt has not been conclusively translated into practice, though it has value in acute or sub-acute diseases. In chronic disease most observers agree that either a primary or a secondary drug symptom can be used as a drug indication, and that, given that it is well marked, there is no clear evidence that it carries any necessity of high or low potency. Both high and low, in other words, will affect both primary and secondary symptoms. If a case calls for sulphur in its "totality," then sulphur (both in high and low potencies) will relieve either sleeplessness or tendency to excessive sleep.

The paradox becomes less paradoxical on consideration of other well-known phenomena. All life energies in cells are compounded of what may be called a building-up factor and a breaking-down factor, a reaction and a preparation for reaction. A secretion is a breaking down of a previously built-up substance, a muscle contraction an "explosion" of a previously prepared substance, a nerve impulse involves a chemical change for which a previous preparation must be made, and so on. Now, the effect of a "stimulus" may be more exerted on one life factor than on the other. Opium is a nerve stimulant for a brief space, and it is as a stimulant that opium eaters take it as often as for a sedative, but its more abiding, predominant action is as a hindrance to nerve action, as a paralyser of muscle contraction. The most prominent action of a drug is apt to mask its opposite effect, but the latter is nearly always to be found if looked for. Now, it can hardly be doubted that the regulation of life processes is carried out largely by agents analagous at least to enzymes, and enzyme action has one great characteristic in that it

is reversible. Yeast will break down sugar into alcohol and CO^2 , but will also synthesize it out of alcohol and CO^2 . If, then, what have just been called the life factors of building up and breaking down in tissues are controlled by enzymes, it is highly probable that one and the same enzyme controls both factors in virtue of this quality of reversibility, and if a drug acts (as it very well may) by influencing enzyme action (if not by directly supplementing it), then while its effect will very likely preponderate upon one factor, it is almost certain to some extent to affect both. But in this case its remedial effect in disease will depend upon the direction in which enzyme action is modified by the illness. Normally, there is, as it were, a pendulum swinging with a definite rhythm and producing opposite effects as it swings in opposed directions. In disease the pendulum tends to become fixed to one side or the other: there may be excessive breaking down or building up with no capacity to break down. The effect of a drug which *ex hypothesi* influences the pendulum directly may very well be to set it swinging again, on whichever side it may have been fixed. This clumsy image may serve also to illustrate the advisability of discontinuing a drug when the desired effect is produced; once the pendulum is set swinging again, to go on interfering with it might well produce new disorder. When a drug is being "proved," it will influence enzyme action first probably in the direction of heightening normal function, because as a cell exists to fulfil a certain function, there should be a certain definite readiness to perform it in response to any stimulus. The function of a muscle is to contract, and the first effect of opium is to stimulate contraction. But after the cells have been thus abnormally stimulated into action, they are apt to revenge themselves by an abnormal reaction in the opposite sense, and the reaction after an opium-produced contraction is a much more obvious lethargy. Non-homœopathic medicine inclines to make use of the secondary

reactions, and, *e.g.* uses opium to check diarrhœa. Homœopathic medicine, at any rate in non-chronic cases, inclines to use primary action, and uses opium to relieve constipation, giving to that end a small dose, for the depth of the reaction is largely proportionate to the amount of drug given, and a dose small enough to produce a primary effect may have no *obvious* reaction at all. In chronic diseases the disturbance to life is more profound. Here in practice either primary or secondary drug symptoms can be used as indications.

Returning from this digression to the consideration of sulphur, it must be next noted that Schulz finds attacks of giddiness a prominent feature in provers. The attacks are slight at first, but become repeated, and may go on even to fainting. Particularly do they appear on rising after sitting, or after long standing, and the use both of alcohol and tobacco predispose to them. These phenomena are probably vaso-motor in origin, and are to be associated with the characteristic attacks of "flushing" of the skin, locally or generally, with sensations of heat and cold. The heart's action is quickened at first and afterwards slowed: irregularity of pulse and palpitation are common symptoms.

Schulz's provers constantly developed headache under sulphur: the early morning on waking was a usual time for its appearance, and it affected principally the forehead and brows. Sensations of congestion were common. Homœopathic provings find the vertex of the head a most characteristic site of sulphur action, but Schulz does not seem specially to have noted this, and speaks of the frontal regions as chiefly affected. Conjunctivitis appeared, with swelling of the mucous membrane and increased secretion. Vision was considerably affected in some subjects, who complained of their sight flickering and of objects seeming veiled and indistinct. Peripheral nerve disturbances took the form of formication and discomfort rising to neuralgic pain, sometimes following the course of large nerves (*e.g.* sciatic)

sometimes more generally diffused. The motor nerve involvement caused tremor of extremities and a general sense of muscular weakness. Also whole groups of muscles and definite joints suffered from pain and discomfort which recalled lumbago and rheumatism. In the respiratory sphere, catarrh of nasal, tracheal, and bronchial mucous membranes appeared, with cough and increased secretion. The alimentary canal was even more definitely attacked. Herpes on the lips was seen several times; the saliva increased, with swelling of the glands, the gums bled easily and were swollen. Anorexia, heart-burn, gastric distension with sense of pressure and fulness testified to the presence of catarrh of gastric mucous membrane. All the provers (taking small repeated doses) experienced at first constipation, with hard, dry stools: after a few days this passed over into diarrhœa. Distension from fermentation and gas formation and marked hæmorrhoids were usual sequels. The colour of the stools suggested a gradual increase in the output of bile under the influence of sulphur. Urine was generally increased: the genital organs in both sexes appeared to be stimulated.

Sulphur has an ancient reputation for affecting the skin, and the provers all showed marked effects of it on this tissue. Itching, crawling sensations and burning came first. Then the hair began to fall, the skin became dry and scaly, and a tendency to local suppurations appeared, small boils and acne spots, and inflammation round the nails. The skin under sulphur undoubtedly contains more blood and pigment is made and deposited more easily. Finally, Professor Schulz found good reason to think that the general level of body metabolism was heightened under sulphur, and it is mainly in chronic diseases that he uses it to stir a system to better reactions by virtue of this general power. He notes (as homœopaths are interested to see) that the beginning of a course of sulphur treatment often leads to a temporary aggravation of symptoms, but regards such a

phenomenon as hopeful, and expects it to lead to final improvement. He also adds that old half-forgotten troubles may reappear under the influence of the drug, and again regards this as of good augury for their ultimate complete disappearance. His whole point of view and practice with the remedy is of great interest and significance, and while homœopaths more often use high potencies and single doses of sulphur, Schulz's short courses of the tincture seem in his hands frequently to achieve admirable results.

From these confirmatory general provings it is time to turn to the more detailed indications of homœopathy. Sulphur to the homœopathist is inextricably associated with chronic disease (although there are many acute and sub-acute conditions for which it may be indicated), since Hahnemann formulated his famous doctrine of the "miasms" and their profound effects. The greatest of all race-poisons to him was the one he called "psora," and sulphur he indicated as one of the chief remedies for it.

Hahnemann's teaching, however modified in details, commends itself to the experimenting physician, in so far as chronic disease can be cleared up (with sufficient frequency at least to encourage the experimenter) by diligent application of the Hahnemannian method, as worked out in detail by Allen, Kent, and others. And since the practice is fruitful, the homœopathist can have no scorn for the doctrine upon which the practice is founded, however odd some of its expressions appear to-day. But there is no need here to spend words over the conception of "psora." Suffice it to make clear that Hahnemann did not mean by it ordinary scabies, as has been ignorantly asserted. He was aware of the parasitic nature of scabies, and his psora was a very different affair, but it was one of the characteristics of it that skin symptoms (especially itching eruptions) should be prominent, and scabies was in his day often called psora, and thus the confusion arose.

The Hahnemannian doctrine of chronic disease does not mean any abandonment of homœopathy: the remedy is chosen by similarity, and it is by its pathogenesis that sulphur becomes so frequently indicated. But an appreciation of the possibility of a poison underlying a chronic symptom-complex leads the homœopathist, when the remedies that seem obviously indicated fail or only relieve temporarily, to consider the drugs which may have a deeper action. Among these the choice must be made by general rather than by local symptoms, by the general body reactions. Even when these are not very definite, there is justification and value in the practice of administering a drug like sulphur, because of its well-established reputation of "clearing up" a case. Unquestionably it happens that the administration of sulphur often brings into prominence new or half-hidden symptoms which point the way to the real remedy, or else it speeds up a recovery that seems to hang fire, and enhances the action of a drug which, though well indicated, has till then shown little power. The explanation may lie, as Schulz suggests, in its influence on general metabolism; at any rate, from the days of Hahnemann it has been held good practice when a case does not respond well, to try if a dose of sulphur will not avail to help, and clinical experience justifies its use even when indications are few. Nevertheless the symptoms of sulphur are many and definite, and the better they are marked the more confidently can the prescription be made.

Most valuable of the indications for sulphur are the general ones, those that concern the patient as a whole rather than any one tissue. The drug is found to be particularly suitable to persons who approximate more or less to a type that may be defined as sensitive, even delicate, but slack, lazy, shiftless, lacking energy and will power, living on the wits rather than by hard work. It must be understood here, and whenever a drug is thus associated with a well-marked type of individual, first that the type

described is only a guide to the physician, and does not exclude exceptions, and second that it is a guide in two ways. Persons who conform to the type are to be regarded as having a constitution which will readily respond to the drug. If, indeed, they conform closely to (say) the sulphur type, then sulphur may be for them a general remedy capable of relieving most diverse complaints. Hahnemann would have said that they were "psoric" by inheritance, and, indeed, they may quite conceivably be persons starting life with a certain lack of balance of life forces (internal secretions or whatever), and sulphur may have the power of amending the ordinary deficiencies of their particular balance. Or again, a person not notably of the sulphur type may approximate to it under stress of illness. The hard worker may overwork and develop the slack and lazy condition of mind and body that so often goes with this drug. Then clearly his life balance is disturbed in a definite direction, and again it is in the hope that sulphur will correct it that the prescription is made.

A characteristic (though not invariable) appearance of a typical case for sulphur is that of a spare, stooping, delicate-looking subject, very disinclined to stand, always ready to sit or lie down, but if compelled to stand, then constantly shifting about restlessly. The complexion and hair are often fair and the eyes blue or light coloured. Very noteworthy is the skin condition : it often looks (and is) dirty, for the typical sulphur patient finds that washing irritates his skin and he avoids it : symptoms worse after bathing is a sulphur "keynote," as it is called. This is associated with a variety of skin eruptions to be described later, and with the presence of more blood in the tissue than normal (as Schulz notes) for wherever the covering layer is thin (lips, eyelids, orifices generally) there is a notable redness of the parts.

Corresponding to this permanent extra blood supply in the skin are the characteristic sulphur "flushes" of heat. The blood suddenly "rushes to

the head," or to the chest; heat and burning sensations of parts of the body occur, followed by sweating. These vaso-motor disturbances have a counterpart in the "sinking," "empty" sensations of which sulphur subjects complain. These no doubt depend on vaso-motor phenomena affecting the abdominal circulation. They are of great importance as sulphur symptoms. Several of the great remedies for chronic disease present them more or less, but with sulphur they are unusually prominent, particularly about 11 a.m. (also sepiæ). That is a characteristic aggravation time for this drug for this particular symptom. It has more than a little importance. The sinking sensations at this time of day are common in women of middle age, and are one of the most potent causes of the habit of spirit drinking, which temporarily relieves them. This, it need hardly be said, is a very undesirable practice, and sulphur becomes a valuable weapon wherewith to fight it. The sinking often translates itself into hunger, and hunger in the forenoon or about noon may be equally read as a sulphur symptom.

The flushes are often associated with palpitation and sweating, and sulphur patients always feel too hot. They want windows open and all the air they can get. Particularly at night (another great time of aggravation for sulphur symptoms) they are apt to find the bed-clothes a burden. To toss the clothes off or put the feet out into the air is a habit that children (and others) often acquire when they thus feel the heat, and it is a good broad hint to the homœopathist for sulphur. Heat and burning are sensations that come out again and again with this drug, both generally and locally. In the skin, itching goes with the burning, and is markedly worse for the warmth of the bed. Indeed, the aggravation from the warmth of the bed is perhaps the most characteristic way in which sulphur patients show aversion to heat, and it is true for joint pains, neuralgias, etc. Sulphur seems to affect the general life rhythm in periods of about twelve hours, and noon and mid-

night will be the points about which aggravations of symptoms turn. Periodicity of symptoms in any periods of twelve hours or multiples of twelve suggests the drug. It has had success in chronic malaria, and workers in sulphur mines in malarial districts are said to be immune.

The burning sensations of sulphur are marked throughout its pathogenesis. They are also prominent under arsenicum and phosphorus, but the subjects who need these are nearly always chilly and not averse from heat as are sulphur patients.

In the sphere of mental activity, the symptoms produced (and therefore curable) by sulphur are largely those compatible with a good average intelligence working under a cloud, as it were, and functioning therefore badly. Thus characteristic is a weak memory for names, for recent events, while affairs of the past are perfectly recalled. A condition somewhat similar is caused by lycopodium, but with this drug, it approaches nearer to mild degrees of aphasia, and allied states, the using of wrong words, omitting of syllables in writing, and so forth. The pathological mechanism may be partly toxic and partly circulatory. Candidates for sulphur are indisposed to any exertion, even to amuse themselves is too much trouble, and work of any kind is a burden; there is indolence of mind and body. Men and women who are born "tramps," who will endure a good deal of physical hardship rather than work steadily at anything, yet often possessing excellent abilities, these frequently suggest sulphur as their constitutional remedy. The "ragged philosopher" is a description that has a certain aptness. That is not to say that a general administration of sulphur would empty the casual wards of the workhouse, but does mean that many of the people who inevitably drift there are of a physical constitution which would find in sulphur a remedy for many troubles to which they are liable.

Patients who need sulphur often seem stupid and dull. They avoid conversation, take no trouble to

answer questions or show any obvious interest even in their own symptoms (though, in fact, they do note these carefully), but the stupidity is much more apparent than real, it is mental indolence and not lack of intelligence that produces the impression. Calcarea subjects, on the other hand, are often earnest and well meaning, but really mentally slow and inactive. A sulphur subject would always rather dream or brood (it is flattery to call their broodings meditations, they are too lazy really to think) than do anything else. It is not wonderful, therefore, that they are often melancholy, inclined to self-pity and hypochondriasis, but it is an inert condition, with little anger or pride or impulse in it. Sometimes the day dreams go on to illusions, Alnaschar visions that produce a foolish kind of happiness. Children who tend to day-dreaming are frequently much helped by sulphur.

Sulphur affects the head in all regions—forehead, vertex, and occiput, perhaps most characteristically the vertex. The headaches are associated with the flushes generally. They are often periodical, returning every week or month. In spite of the general desire of sulphur patients for fresh air, the headaches (especially if one-sided sick headaches) are often worse in fresh air and relieved in warm room. The head is hot and flushed, and probably the brain congestion is relieved by the warm atmosphere that draws more blood to the surface. Exactly the opposite phenomenon is characteristic of arsenicum, where the headaches are relieved by fresh air, though the patient generally needs warmth, and hates cold of any kind. With the pain goes the characteristic of burning: the tendency of sulphur to develop acne spots shows well in the face, and the symptoms are worse from application of water, and generally worse at noon and midnight. Sometimes with the head very hot, the feet are cold in spite of the general tendency of sulphur patients to have hot, burning feet and hands. The eyes—at any rate, the superficial structures of the eye—are much affected by

sulphur. The usual burning and itching sensations are accompanied by marked conjunctival redness and catarrh. There are feelings of dryness and of grit in the eye, and later increase in secretion, though sulphur is not one of the drugs that produces very profuse secretion, as, for instance, *pulsatilla* does. Vision becomes dim from the congestion of the surface rather than from affection of the deeper structures. Broadly speaking, sulphur finds its place particularly in recurrent conjunctivitis of unhealthy children under suspicion of tuberculous or syphilitic infection. Cases that do well for a time and relapse are here, as elsewhere, frequently indebted to the drug for a fresh start towards recovery.

Much the same may be said for the value of sulphur in chronic ear and nose catarrhs. It is especially useful in deafness following chronic middle ear disease and in the nasal conditions where there is no polypus formation or much mechanical obstruction, but a constant infection with frequent exacerbations, no great amount of discharge, but considerable discomfort. Sensations of itching and burning will, as usual, be present, and the nostrils are characteristically red in the sulphur case. Apart from these cases, when flushes are accompanied by tinnitus, sulphur often relieves the second symptom as well as the first. More acute cases of otitis in characteristic sulphur subjects react well to it, but the choice is likely to be made more on the general than the local symptoms. It follows *apis* well here: With chronic nasal catarrhs, sense of smell and taste are often lost, and simultaneously a subjective sensation of unpleasant odours may be prominent. Secretions and excretions of all kinds in sulphur cases are usually foul smelling; this is also characteristic of *guaiacum*, a drug that has certain affinities to sulphur, and very notably with *psorinum*.

The alimentary tract is affected in certain definite ways. The lips are red, the tongue generally white with a red tip and edges, the pharynx congested with sensations of burning and dryness. The faintness

and great hunger and empty feeling at 11 a.m. has already been noted as a characteristic subjective symptom. Thirst more marked than hunger is usual, and desire for sweets, though the latter is less prominent than with lycopodium or argent. nit. Sulphur is unquestionably of value in combating the craving for alcohol, especially a craving for spirits, in middle-aged women, where, as already observed, it seems to arise from the attempt to check the empty, sinking sensation which is so marked in the sulphur pathogenesis. Objectively under sulphur there is great tendency to flatulence, both gastric and intestinal, with rumbling and gurgling and emission of gas. Evidence also there is of portal stasis, hæmorrhoids, and constipation. Constipation with rather large, dry stools (somewhat like those of bryonia) is the usual condition when sulphur is indicated, but there is a characteristic painless diarrhœa, coming on about 5 a.m., and compelling the patient to hurry out of bed for relief, which will respond quickly to this remedy. A similar symptom will be found under aloes. Sulphur and aloes are antidotes, and probably one of the reasons why sulphur (like nux vomica) is often valuable in constipation when much purgative medicine has been taken, is that so many purgative pills contain aloes. Children who are in need of sulphur, besides the general symptoms already so much insisted on, frequently have a big, distended belly and emaciated limbs. Natrum sulph. is also a remedy for abdominal flatulence and diarrhœa, but, as a rule, the diarrhœa is more persistent (though it begins only on rising) and the abdominal pains more marked. There are differences also in the general symptoms of the two remedies, though no doubt the presence of the sulphur element in nat. sulph. is a link of some consequence. Prolapsus ani, tenesmus, hæmorrhoids, excoriation and soreness of the anus all appear under sulphur, and the invariable burning and itching sensations are found.

In the genito-urinary sphere there is found the same

redness, itching, burning sensation at the urethral and vaginal orifices, and similar chronic, not very profuse, but rather irritating discharges. When gonorrhœa in either sex improves up to a point and then delays, a few doses of sulphur will often give the process of recovery a fresh start, if there are any general symptoms in the case that suggest the drug, or even if there are merely the obstinate objective appearances, and an absence of well-marked symptoms. Similarly sulphur may help chronic prostatitis, sub-involution, chronic pelvic inflammation, whenever the remedies that seem more immediately indicated fail or slacken in effect. Aggravations of symptoms at night or at 11 a.m., and any characteristic flushings and sinking sensations, and general dislike of heat and of bathing affected parts, are strong indications for its use. Enuresis in sulphur subjects is often cured by it. It need hardly be said that the climacteric in women is a time when sulphur is almost sure to be called for; here it competes with sepiâ and lachesis. As usual with remedies that have special virtues in chronic diseases, high potencies and infrequent repetition form the best method of administration.

In the respiratory sphere the power of sulphur to take up and complete the process of recovery from acute diseases is very marked. Occasionally when the general symptoms calling for it are very clear it will control a case of pneumonia effectively from the beginning, but more often its sphere is after the crisis, if resolution is for any reason delayed. Perhaps it is more often needed in lobar than in bronchopneumonia, but many cases of chronic bronchitis benefit by a course of it, and similarly chronic pleurisy, or chronic laryngitis, will frequently be helped. Sulphur symptoms are particularly likely to appear when the physician has reason to fear that tuberculosis is threatening, and even when the disease is unmistakably present the drug will sometimes seem to arrest the progress of it. But in tuberculosis a word of caution is required. The arrest of pulmonary

tubercle requires the effective mobilisation of forces of resistance at a reasonably early stage. If for any reason this is not achieved naturally or artificially, the disease often becomes chronic, and thereafter smoulders away with occasional exacerbations that permit, in favourable cases, of great palliation, and of the leading of quite useful lives, but is rarely properly arrested. Sulphur is invaluable in helping to mobilise the resistance forces, and in early or threatening tuberculosis will often clear up a case admirably, but sometimes the disease has a stronger hold of longer duration than physical signs suggest. Sulphur administered to cases wherein resistance has been attempted without much success, often leads to a violent reaction, such as used to be seen after big doses of tuberculin, and as, in some of those cases, the final result is to weaken the patient and leave the situation worse not better. Unless the physician is convinced that the powers of resistance are good and the disease early, sulphur in any potency above the thirtieth should be given with some caution. When there is any doubt, it is well to test the case with lower potencies, 3, 6, or 12, or the tincture, and only give higher potencies as the success of the lower warrants. Characteristic symptoms, that suggest it in chest disorders, are: Great desire for air, especially at night; suffocation; oppression and burning sensations in the chest; stitching pains shooting through to the back, worse when lying on the back or breathing deeply; flushes of heat in the chest, rising to the head and face.

In all chronic affections of joints, fasciæ, and fibrous tissues, sulphur springs have a reputation which homœopathy confirms and extends. The choice, again, is largely dependent on the presence of the general symptoms so often quoted, but especially notable are burning in feet and hands, aggravation from bathing, stiffness and cracking of joints, pain in the back (felt especially on rising after sitting), and cramps generally. The drug will help osteo-arthritis, old tuberculous, syphilitic or gonor-

rhœal joints or chronic rheumatism, when the symptoms correspond.

The skin is greatly influenced by sulphur. The hair falls, and fingers and toes and the surface generally, tend to be dry, though local and partial sweatings (arm-pits, genitals, etc.) are frequent and generally offensive, and after a flushing there is often sweating. The condition is rather of irregular sweating, the skin too dry generally, but with excessive local or temporary perspiration. Burning and itching are prominent, relieved by scratching; vesicles and pustules readily form, and the skin grows rough, scaly, and sore, made worse, as to sensation, by washing. There may be great itching with little to show for it but erythema; pigment is deposited readily. Sulphur appears to lower the resistance to staphylococcal infection [this has been experimentally proved for calc. sulphide—(hepar. sulph.) which cf.] so that pustules and boils appear in the provers, and correspondingly medicinal doses raise resistance, and sulphur is admirable for pustular acne and furunculosis. Black gunpowder has been successfully used for suppurations and septicæmias, both streptococcal and staphylococcal, and no doubt owes much to the sulphur it contains.

Finally, sulphur is often a remedy for sleeplessness, when the patient tosses unrestfully, with constant and disquieting sense of heat and burning. Patients often wake at 3 a.m., as with *nux vom.*, and cannot sleep again. There is a general aggravation of symptoms at night with sulphur.

Sulphur on the whole is most successfully used in high potencies infrequently repeated. But *short* courses of the drug in tincture or low potency sometimes act very well. It is pre-eminently the chronic counterpart of aconite, and whenever a case has done well up to a point on aconite, sulphur will take up the torch and carry it on. It follows bryonia excellently, and mercury and calcarea follow sulphur well, but the reverse is not true. Sulphur seems sometimes to act in a complementary way to both

pulsatilla and nux vomica, and as a matter of fact there are few remedies whose action it disturbs and many whose power it will seem to enhance.

THUJA.

Thuja occidentalis. *Arbor vitæ.* *Tincture of the fresh green twigs.*

Thuja not only owes its place in the Homœopathic Materia Medica to Hahnemann, but before him was used little if at all. Nor, except for homœopaths, who prize it highly, has its fame increased since Hahnemann's day. Lewin has a word or two to say of the effects of large doses of it (taken as an abortifacient): he notes that it does seem to affect the genital organs profoundly, and that it has a relation to papillomata. Both these statements are more than confirmed by homœopathic provings and clinical results, but in addition the investigations of the homœopathic school have made precise the indications for this drug in a variety of chronic disease conditions.

It has been elsewhere stated that Hahnemann considered the foundation of any case of chronic disease to consist in poisoning by one or more of three "miasms." Of these he distinguished one under the name of sycosis, and it was as the main remedy for sycosis that he valued thuja. The field of the sycosis of Hahnemann is covered to-day almost exactly by the disease gonorrhœa, and it is no small proof of Hahnemann's clinical insight that he recognised long before it became common knowledge the deep action of this deadly poison. Inasmuch as Hahnemann lived before bacteriology, the boundaries of his "miasms" are less precise than they might have been if he could have drawn them some decades later, and no doubt he may have included under sycosis cases not obviously gonorrhœal;

but, on the other hand, homœopathy, always concerned at the bedside rather with body reactions than with body enemies, finds the same remedy frequently indicated in symptom-complexes, arising from diverse causes but rousing the system to similar reactions. Thuja, therefore, while very frequently required in gonorrhœa, can also be a remedy for other conditions, and the homœopathist chooses it by its indications among the symptoms rather than by the presence of one specific germ of disease.

One of the features by which Hahnemann distinguished syccosis was a tendency to the development of warty growths, and especially of soft cockscomb-like papillomata, bleeding readily and moist with an unpleasant secretion. It has been already noted that Professor Lewin finds evidence of a specific power of thuja over papillomata, and the provings well confirm this belief. Whenever papillomata are present, and most of all when they present the characteristics outlined above, thuja comes swiftly to mind; not that it is the only remedy for such new growths, by any means, but because it is a very prominent one. It has a further relationship to more serious new growths, and even malignant tumours have seemed to yield to it, as in the once famous case of Marshal Radetzky. Particularly, however, polypi or fibromata (*e.g.* epulis) or papillomata that are the result of chronic irritation by discharges will find a remedy in thuja. Even nasal polypi can often be helped, obstinate as they are: thuja will influence the catarrh that accompanies them, and if it does not cause the growths to dwindle (occasionally it does even this, though slowly), it will often do something after their removal to prevent recurrence.

Thuja is one of the remedies that suits those whose complaints are much aggravated by damp and cold, but especially by damp. The unfavourable reaction readily takes the form of catarrh of mucous membranes through the lowering of systemic resistance to germs of catarrh, and for infections of the upper respiratory passages and genito-urinary tract,

and for certain chronic gastric conditions, when damp and cold aggravate the symptoms, thuja comes well forward as a likely remedy. A kindred drug is sulphate of soda, but the discharges that fit this medicine are more profuse and purulent. The discharges that suggest thuja are free but not excessive, of muco-pus and generally foul smelling.

Chronic catarrh, sensitiveness to damp cold, and tendency to new growths are, then, leading indications for thuja; but there is another, even more important. Thuja has a marked action upon the skin, producing either scaly patches suggesting psoriasis (often pigmented), warts, or condylomata, or a definitely pustular eruption, not as a rule covering very wide areas, but suggesting in the individual pustule the characteristic pock of small-pox. For this reason thuja has been used for small-pox considerably, and there is reason to believe that it has real value in the disease; but the eruption is even more like that of vaccination, and it is the relation of thuja to vaccinosis (as Burnett called it) that has become significant. In so far as it is generally used to decry the value of vaccination (a question not here at issue), the fact is generally denied or made light of that various chronic disease symptoms not infrequently seem to start from a vaccination, successful or even unsuccessful. But all physicians are familiar with chronic skin troubles that appear thus to begin, and Burnett collected many cases of chronic neuralgia, chronic dyspepsia, and constipation, etc., besides a tendency to papillomatous growths, all seeming to date from the time of vaccination, especially when the operation had been repeated at intervals in the way generally recommended as a prophylactic against small-pox. He therefore classified these conditions together as varieties of vaccinosis, related them to Hahnemann's sycosis,* and, from the similarity of symptoms,

* Burnett, of course did not mean that vaccinosis and gonorrhœa were identical, but that both affected the system similarly (though gonorrhœa more virulently), and were therefore both to be regarded as falling under Hahnemann's heading of sycosis.

treated them largely with thuja, and, as he claimed, with marked success. His work has been followed up, and it may at once be said that there are few homœopathists who do not consider thuja whenever a case gives a clear history of vaccination as the starting point of chronic disease symptoms (particularly skin symptoms).

The question deserves further consideration, however. Apart from vaccination, chronic skin troubles, neuralgias, dyspepsias, etc., may present thuja symptoms and respond to thuja. But clinical observation finds that a starting point of disease in vaccination is an additional indication for the drug, and even when other thuja symptoms are not prominent, this relationship may hold good for the relief of the patient. More difficult for many physicians is the whole conception of "vaccinosis" as an entity of disease. However, there is no question, first that vaccine lymph contains a powerful toxic agent, and second that the body reacts to it sometimes violently. Further, several germ poisons (*e.g.* influenza) produce effects which continue long after the acute stage is past. There is nothing, therefore, inconceivable in the conception that vaccine lymph should (in susceptible subjects—and these alone are in question here) produce remote and lasting effects. Clinical observers who look for evidence of this, will find it, and Burnett's views can be taken at least as a working hypothesis. Even if the risk of "vaccinosis" be conceded, it is not a very frequent or often a severe sequel of one vaccination. Repeated vaccinations are more likely to give rise to it, and the element of risk should be weighed against the prophylactic power for which the operation is undertaken.

Another general antidotal effect of thuja has been clinically discovered and emphasized by Dr. Clarke, and that is its power to relieve chronic symptoms brought on by abuse of tea. The headaches and subjective heart symptoms, sleeplessness and dyspepsia of tea-drinkers to excess are frequently re-

lieved promptly by thuja when the mere cessation of the poison has brought no early relief.

To these general features that characterize the drug, can now be added regional symptoms in detail. The mental condition is one of dejection and depression ; the condition may approach melancholia, and is then apt to be characterized by fixed ideas. These are usually fantastic (*e.g.* feels as if the limbs were of glass, and might break, or imagines there is a living animal in the abdomen). The melancholy leads to aversion from company, with peevishness and readiness to quarrel. Life seems no longer worth living to these subjects. Slight degrees of aphasia or allied conditions (*e.g.* use of wrong words in writing or speaking) are not uncommon.

There is a very definite influence on sleep, and thuja is suited to patients who wake early and cannot sleep afterwards (*cf.* *nux vomica*). The dreams are often of falling from a height.

The headaches which indicate the drug cause much mental confusion ; they are often dull and stupefying, but relieved by the open air. Sharper pains are not uncommon in small spots, and feelings as of a tight band round the head. Vertigo usually accompanies the headache. The morning on waking is a common time of aggravation of chronic headache, or the evening at bed-time. In this latter case it frequently prevents or disturbs sleep. The skin of the scalp often sweats and eczematous eruptions or warty growths often appear in cases that are helped by thuja.

The special sense organs show the effects of thuja in chronic catarrhs and tendency to develop overgrowths of tissue. Thus, not only papillomata, but granulations (*e.g.* anal), polypi and fibromata can be benefited. Conjunctivitis with lachrymation is marked, and, remembering the deadly effect of the gonococcus on this structure, any local measures adopted for the cure of gonorrhœal conjunctivitis should be supplemented with thuja as an internal remedy. Burnett had a saying that "Gonorrhœa

is the mother of catarrh," meaning thereby that uncured gonorrhœa, even if latent, predisposed to all kinds of secondary infections of nearly all mucous surfaces. Thuja certainly affects all mucous membranes, tending to cause muco-purulent, copious, foul-smelling discharges, and therefore, on grounds of similarity, its curative relation to gonorrhœal cases becomes emphasized.

The alimentary canal is a site of marked action of thuja. It affects the teeth profoundly; the roots become carious, while the crown remains sound, or relatively sound. The gums are swollen and inflamed. Pyorrhœa alveolaris is certainly often helped by the administration of the remedy. Ranula and epulis are both conditions for which thuja has been given with success. The tongue is usually clean or only thinly coated and often is red and painful. The power of thuja to antidote excess in tea-drinking has been already mentioned, and great tea-drinkers often present a tongue of this character, even when (as often they are) constipated. There is a chronic post-nasal catarrh characteristic of thuja, and a chronic pharyngitis with swollen veins and unhealthy mucous membrane.

The appetite is capricious. There is often a mawkish or sweetish taste in the mouth, to relieve which the patient craves salt. Cold food is preferred, and a very little as a rule satisfies the appetite. Burnett thought that inability to take food in the morning at breakfast was an indication for thuja. In many ways the beginning of the day is a time of special suffering for thuja subjects. It is a noteworthy clinical observation that in the twenty-four hours, the twelve hours that include the time from sunrise to sunset are usually the worst for gonorrhœal subjects, while those who are syphilitic suffer most during the twelve hours that include the time from sunset to sunrise.

Every sign of chronic catarrh of the stomach is present: eructations, vomiting (mucus and food), nausea, discomfort, pressure and flatulence. Acute

pain is not so common, and signs of actual ulceration rare. The sensations are rather those of weight and pressure. *Abies nigra*, a plant allied to *thuja*, has a deserved reputation for similar gastric conditions, when the sensation of a lump in the stomach after food is very clear and definite. The catarrhal condition appears to extend throughout the greater part of the bowel, with flatulence and discomfort and soreness as accompanying symptoms. There is marked constipation and tenesmus, and the anus shows hæmorrhoids or condylomata, cracks or fissures with great frequency. Offensive perspirations are usual in groin and round buttocks and genitals. Occasionally there is an early morning sudden, explosive diarrhœa.

In the respiratory sphere there are again signs of catarrh. The larynx is affected and trachea, and polypus of the vocal cord has disappeared under the drug. There is not much evidence of effects of *thuja* on the lungs, but the whole bronchial tract is influenced. Sputum is of muco-pus and cough irritating and explosive. Asthma is a disease wherein at times *thuja* has great power. It is to be chosen largely, however, from general symptoms, such as aggravation from damp weather and association with a history of gonorrhœa or of repeated vaccinations.

The genito-urinary sphere is one of the utmost importance for the action of *thuja*. In the female, are to be noted as indications for it gonorrhœal symptoms of all kinds, discharges, condylomata, ulcers, and swellings. The periods are too early but scanty, with severe pains often centred in the left ovarian region. Tendency to abortion, especially with a gonorrhœal history, calls for *thuja*. But the drug also meets the late effects of gonorrhœa, chronic inflammations of uterus, tubes, and ovaries, and all the aches and pains and wearinesses that accompany these. The implication of the joints (especially of the sacro-iliac) is a further indication, and whenever osteo-arthritis is or has been accompanied by leu-

corrhœa or pelvic symptoms, even with no clear history of gonorrhœa, thuja should be remembered.

In the male the effects of both acute and chronic gonorrhœa are similarly countered. Urethritis, prostatitis, varicocele, ulcers, condylomata, and balanitis—any of these local conditions suggest thuja, and if the general constitution of the patient is not definitely opposed to that which indicates the drug, this is the remedy of choice. The more chronic effects of gonorrhœa are signally helped—persistent urethritis and prostatitis and arthritis. There is some evidence of the effect of the drug on the kidney tissue, but it is rather the passages from ureters to bladder and then the urethra that feel the influence of thuja most, and for any recent inflammations in these regions it has definite claims for consideration. Sugar, blood, mucus, and albumen have all been found in the urine of subjects under the influence of thuja, but the mere presence of any one of them would not be sufficient indication for its use without some further symptoms from the general pathogenesis.

It may be appropriate here to consider the question of local applications (irrigations, etc.) in gonorrhœa. Comfort and cleanliness demand some irrigation, but the homœopathist is, as a rule, inclined to doubt the value of the very powerful antiseptics that are fashionable. It is clear that their use does not avail to prevent a greater or less degree of generalised infection. Urethral discharges may quickly cease under their use, and the patient apparently recovers more quickly than if they are not used, but bitter experience most frequently shows that the disease is latent, not eradicated. The local inflammations are body reactions to the disease, and any cure must rather proceed from within outwards (by increase of the natural, phagocytic and other defences) than from without inwards, for the strongest antiseptics will not penetrate very deeply into the tissues. Thuja acts by encouraging the local reaction, and also almost certainly by encouraging the general resistance, and when it is well chosen it is generally

enough to use simple saline solutions for cleanliness and avoid the powerful antiseptics. By this means speedy relief to the pain and discomfort is usual, and though sometimes the discharge is slower to disappear, subsequent relapses are less common and the hope greater that the disease has been eradicated. Each case must be treated on its own merits, but as a general rule this treatment is the best in final results.

Subjects in whom gonorrhœa is uncured are often sufferers from subjective cardiac symptoms. Those that indicate thuja are palpitation (worse morning), cardiac anxiety and stitching pain, and a slow, weak pulse, with occasional bursts of tachycardia.

The joint conditions have already been discussed. Any gonorrhœal arthritis, acute or chronic, may be helped by thuja, and even when there is no clear history of this disease it is worth a trial if there is much worsening of symptoms from damp and if local foul-smelling sweats are present. Movement generally relieves pains to some extent, and heat (oddly enough) is not often grateful when locally applied, rather the reverse. Pyorrhœa as a cause of arthritis is another possible indication for thuja.

Muscle sheaths and fasciæ may be affected in cases that respond to thuja, and a few years ago a most extraordinary improvement was effected by this drug in two cases of the rare disease myositis ossificans, treated at the London Homœopathic Hospital. Both were advanced cases of the disease, and one was well known to most of the hospitals of London. The improvement made under thuja was well-nigh miraculous, and sustained. In both these cases the drug was chosen on the whole symptom-complex, not on the local muscle symptoms ; but it is interesting that each case, considered quite independently, worked out to the same remedy, and justified the choice of it by its response.

Finally, the skin in thuja subjects may show a variety of eruptions, papular or pustular, eczematous or like psoriasis. The nails suffer, chillblains are

common, the sweat glands are active (sweating is generally more on parts uncovered), and extra pigment is deposited. The tendency to warty growths is marked.

VERATRUM ALBUM.

The White Hellebore. Tincture made from the root-stocks (plants of Alps and Pyrenees) early in June, before flowering.

Hellebore was a drug largely used in the ancient world, and the Greek physicians appear to have used both the white (*veratrum album*) and the black (the Christmas Rose, *helleborus niger*), but principally the white, the subject of this chapter. The two plants are classified in different natural orders and have different pathogeneses.

Hahnemann wrote a once-famous essay on the "Helleborism of the Ancients," and in it discussed the old use of the drug as an "evacuant." It used to be taken in large doses as a regular "cure" in spring and (less frequently) in autumn. Mental and nervous diseases were held to be specially suitable for its action, but many other disorders were treated by it. The dosage was large and the risks of the treatment considerable.

Lewin (*Die Nebenwirkungen der Arzneimittel*) speaks of the local use of veratrin (alkaloid of *v. album*) as producing an occasional local redness and swelling, with pricking, burning sensation and neuralgia, not only locally but in parts of the body far removed from the actual application. A rash may appear, erythematous, petechial, rarely vesicular or pustular. Taken internally, salivation may occur with subsequent dryness of the mouth; loss of appetite, burning pain, and vomiting are constant. Children are specially susceptible. Abdominal pain

and diarrhœa (choleraic) are common symptoms. A slowing of the pulse rate is very characteristic and may lead on to collapse. Fainting is a prominent symptom. The heart muscle appears to be affected harmfully. The patient is pale with dilated pupils : cold sweats and cramps are frequent.

These are the cruder symptoms of the drug. The provings fully confirm them, and lead to more precise indications. Particularly are the following symptoms to be noted, for when prominent in any case they call strongly for the use of this remedy.

A—COPIOUSNESS OF DISCHARGES.

This applies to the vomit, the diarrhœa, the sweat, the urine. If there is salivation, it, too, will be profuse. So rapidly does the body lose water in these ways that symptoms of collapse appear, faintness, rapid exhaustion and prostration ; the skin becomes blue and cold, the face "hippocratic," and, as always when much fluid is lost, violent cramps are experienced. Needless to add, these symptoms make ver. alb. one of the great remedies for cholera and choleraic diarrhœas ; especially the cold sweat, the copious evacuations (*vomiting as well as diarrhœa*) and collapse call for it.

B—COLDNESS.

Coldness of the whole body : rigors and frequent shiverings ; *cold sweat on the forehead* or elsewhere ; skin cold and blue. In spite of the coldness, external heat does not relieve, but if anything, aggravates the symptoms. This group of phenomena recalls camphor, but the copious discharges of ver. alb. serve to distinguish its pathogenesis from that of camphor.

C—FREQUENT FAINTING.

This is not only to be noted as a result of the collapse following the evacuations, but is characteristic of the drug when these violent symptoms are less marked. It is due probably (as Lewin suggests) to a direct effect on the heart muscle. Characteris-

tically the pulse is slow and weak, and the blood-pressure low, and veratrum alb. has a definite place as a heart remedy for the cardiac effects of severe or prolonged illness. Cases where *cratægus* is valuable will often benefit by some doses of ver. alb. The patients show the characteristic coldness, but are worse from heat.

D—VIOLENT MENTAL SYMPTOMS.

These have a special interest in view of the ancient uses of ver. alb., and indeed Hippocrates noted that "Hellebore can cause madness and sometimes can cure it." The symptoms that suggest this drug are characteristically violent:—Violent delirium, violent mania, destructive, lascivious, and frequently accompanied by filthy habits (eating fæces and so forth). Religious excitement may be present, and sexual symptoms are more common still. Nearly always the diagnosis of the remedy will be clinched by some of the symptoms from the foregoing groups. Thus stramonium presents violent mental symptoms as does belladonna, but neither of these shows the characteristic pale, cold, sweating skin of ver. alb. On the contrary, the face is red and congested. The violent attacks characteristic of ver. alb. often alternate with sullen silences, but the silences do not mark cessations of the violent emotions, for if disturbed the patient may break out most furiously.

When these characteristic symptom groups are remembered, the indications for ver. alb. are not likely to be overlooked. But there are a variety of subsidiary symptoms, not likely to be found without some at least of the more important mentioned above, but leading to valuable uses of the drug. Thus, there is a form of constipation that ver. alb. will relieve where the stool is hard and large, perhaps in rounded black lumps, with frequent urging and colic somewhat as with *nux vom.*, but distinguished by cold sweat, faintness and prostration, and worsening from heat.

Further, ver. alb. is a marked cause of pain, and will relieve all kinds of neuralgias (trigeminal, sciatic, etc.) and headaches: it will also help dysmenorrhœa, when prostration and perhaps vomiting and cold sweat are present. Heat worsens always; the pain compels the patient to move about, but no relief follows. This sometimes is noted with pains referred to joints and fasciæ (so-called rheumatic), and worsening from damp is an additional indication. When dysmenorrhœa is violent and gives rise to emotional disturbances of a violent nature, the drug is particularly useful. Ver. viride frequently relieves dysmenorrhœal pains.

In the respiratory sphere there is a marked, irritable tickling, referred to the region behind the sternum and causing violent cough.

In many ways the drug is suited best to cases occurring at the extremes of life, childhood and old age. Thin, choleric subjects respond to it well, and emotional persons generally.

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CLINICAL INDEX.

[N.B.—This Index is not a repertory. It gives the names of diseases and of some symptoms ranking as diseases, with their remedies, as mentioned in the text, to which reference should be made by the reader.]

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